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BEFORE THE ARIZONA CORPORATION COI

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT.

Docket No. W-01303A-09-0343

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTE WATER DISTRICT.

Docket Nos. W-01303A-09-0343

DIRECT TESTIMONY OF MARSHALL MAGRUDER IN REBUTTAL TO RATE STRUCTURE AND RATE CONSOLIATION TESTIMONIES BY THE COMMISSION STAFF AND ARIZONA-AMERICAN WATER COMPANY

3 MAY 2010

Marshall Magruder, a Santa Cruz County Arizona American Water Tubac Water District customer, a Party in Dockets W/SW-010303A-08-0227, approved as an Intervenor in these Rate Design and Consolidation proceedings, submits his direct and rebuttal testimony to the Commission Staff's Rate Consolidation Proposals and Testimony of 29 March 2010 and the Arizona-American Water Company Rebuttal Testimony of 7 April 2010.

Herein are proposals based on Commission Staff and AAWC testimonies and concern

a. Rate Consolidation for all water districts and rate categories
b. Rate Consolidation for all sewage water districts

c. Rate Structures designed to provide a lowest rates for lowest consumption users (such as those on limited incomes) and increasingly higher rates for the highest consumption users to conserve water throughout Arizona by sending "price signals" to the highest consuming water users, including residential, businesses and industrial customers.
d. Rate Structures design includes five tiers (reversed inclined blocks), so customers can "see" and move from one rate to a lower rate more easily, by using less water.
e. Consolidation of all "Fees and Miscellaneous Charges" into one schedule
f. Consolidation of the Company's "Rules and Regulations" into a user-friendly document
g. "Water Demand Side Management (DSM)" programs proposed to include specified performance measurement objective criteria and goals for all rate categories with "water" audits, and
h. Establish a Water Leakage program with Incentives and Penalties to reduce all water losses in all districts.

My conclusions are in best interest for the customers, the Company and the Commission with consolidated rates that implement water conservation measures with steep inverse slope tier blocks with others recommendations herein for consideration and adoption by the Commission.

This Testimony used the Company's AZW CONSOL V3 program for Schedules H-1 and H-2 herein that can reproduce the same results. A CD-ROM will be provided, if requested, however, there will be a delay due to being on travel through 14 May.

I certify this filing has been emailed or mailed to the Commission, Company and parties on the Service List. My e-mail address is provided below.

Respectfully submitted on this 3rd day of May 2010

MARSHALL MAGRUDER

By _____

Marshall Magruder
PO Box 1267
Tubac, Arizona 85646-1267
(520) 398-8587
marshall@magruder.org

Service List

Original and 13 copies of the foregoing are filed this date with:

Docket Control (13 copies)
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007-2927

Tenna Wolfe, Administrative Law Judge
Maureen Scott, Attorney
Robin R. Mitchell, Attorney

Additional Distribution (1 copy each) are filed this date by email:

Dan Pozefsky, Chief Counsel
Residential Utility Consumer Office (RUCO)
1110 West Washington Street, Ste 220
Phoenix, Arizona 85007-2958
DPozesfsky@azruco.gov

Thomas Broderick
Arizona American Water
19820 N. 7th Street, Suite 201
Phoenix, Arizona 85024

Joan S. Burke
Law Office of Joan S. Burke
1650 North First Avenue
Phoenix, Arizona 85003
Attorney for Corte Bella Golf Club
Joan@jsburkelaw.com
Electronic service only preferred

Thomas H. Campbell
Michael Hallam
Lewis and Rocca, LLP
40 North Central Avenue, Suite 1900
Phoenix, Arizona, 85004
Attorney for AAWC
TCampbell@LRLaw.com
MHallan@LRLaw.com

Jeff Crockett and Robert Metli
Snell & Wilmer
One Arizona Center
400 East Van Buren Street
Phoenix, Arizona 85004-2202
Attorney for The Resorts
rmetli@swlaw.com
Jcrockett@swlaw.com

Judith M. Dworkin
Sacks Tierney PA
4250 N. Drinkwater Blvd, Fourth Floor
Scottsdale, Arizona 85251-3693
Attorney for Anthem Community Council
Judith.Dworkin@sackstierney.com

Bradley J. Herrema and Robert J. Saperstein
Brownstein Hayatt Farber Schreck, LLP
21 East Carillo Street
Santa Barbara, CA 93101
Attorney's for Anthem Golf & Country Club
BHerrema@BHFS.com

Norman D. James
Fennemore Craig, PC
3003 North Central Avenue, Suite 2600
Phoenix, Arizona 85012
Attorney for DMB White Tank LLC
njames@fclaw.com

Andrew Miller, Town Attorney
Town of Paradise Valley
6401 East Lincoln Drive
Paradise Valley, Arizona 85353-4328
Attorney for the Town of Paradise Valley
amiller@paradisevalleyaz.gov

Michael Patten and Timothy J. Sabo
Roshka DeWuld & Patten PLC
400 East Van Buren Suite 800
Phoenix, Arizona 85004-2262
Attorneys for the Town of Paradise Valley
mpatten@rdp-law.com

Creg Patterson
916 West Adams Street, Suite 3
Phoenix, Arizona 85007
Attorney for WUAA
Gpatterson3@cox.net

Lawrence V. Robertson, Jr.
PO Box 1448
Tubac, AZ 85646-1148
Attorney for Anthem Community Council
tubacattorney@aol.com

Copy of the foregoing mailed on this date to:

Philip H. Cook
10122 West Signal Butte Circle
Sun City, Arizona 85373

W.R. Hansen
12302 West Shallow Drive
Sun City, Arizona 85024

Larry Woods
13815 East Camino Del Sol
Sun City West, Arizona 85375

DIRECT TESTIMONY
OF
MARSHALL MAGRUDER
AND REBUTTAL
TO
RATE STRUCTURE AND
RATE CONSOLIDATION TESTIMONIES

BY THE
COMMISSION STAFF AND
ARIZONA-AMERICAN WATER COMPANY

3 MAY 2010

IN THE MATTER
OF THE APPLICATIONS OF
ARIZONA-AMERICAN WATER COMPANY,
AN ARIZONA CORPORATION,

FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT
(ACC Docket No. W-01303A-09-0343)

AND

FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTE WATER DISTRICT
(ACC Docket No. SW-01303A-09-0343)

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Testimony Summary, Conclusions and Recommendations

This testimony proposes a new Rate Structure so that total revenue for the Company is reduced by only $514 when all water districts are consolidated. The total residential revenue was reduced by 3% and commercial revenue increased by 13%. A water conservation-oriented Rate Structure with a low and fixed-income "lifeline" rates has been used with the Company's model to meet the total consolidated revenue. The resultant changes to pre-consolidated revenue for the residential and commercial customer classes are

	Residential Revenue	Commercial Revenue
Sun City	**decrease 3%**	**increase 22%**
Sun City West	**decrease 21%**	**decrease 3%**
Agua Fria	**decrease 8%**	**increase 5%**
Anthem	**decrease 5%**	**increase 15%**
Tubac	**decrease 3%**	**decrease 10%**
Havasu	**decrease 8%**	**insignificant change**
Paradise Valley	**increase 32%**	**increase 29%**

The residential and commercial Consolidated Service Charge is $15.00 for 5/8 and 7/8 inch services and $25.50 for the 1-inch service. The consolidated rates are standard for all rate classes and categories. These water-conservation residential and commercial rates, by tier, are

Tier 1 **$0.83/1000 gallons** (this is the residential "lifeline" rate for first 4,000 gallons)
Tier 2 **$1.90/1000 gallons** (the first tier for commercial 1.5-inch and larger rate categories)
Tier 3 **$2.96/1000 gallons**
Tier 4 **$4.50/1000 gallons**
Tier 5 **$6.00/1000 gallons.**

For residential 5/8 and 3/4-inch and 1-inch rate categories, the tier breakpoints are at 4,000; 10,000, 20,000; 40,000 and 80,000 gallons. This is for about 90% of the Company's customers.

Higher Customer Charge and tier breakpoints are proposed for larger rate categories.

Other rate classes, such as private fire and company's exceptions, are essentially as proposed by the Company.

A three-year phase-in of all rate changes is proposed any change greater than 10%.

Consolidated Sewage Water rates, unchanged from the Company's filings, are proposed.

Consolidated Fees and Miscellaneous Charges are proposed.

Consolidated and reader-friendly Rules and Regulations are proposed.

The creation of a Water Demand Side Management (WDSM) program is proposed.

The creation of a Water Leakage program with financial incentives and disincentives for the Company is proposed.

All of the above were based on **fair and reasonable** considerations for both ratepayers and the Company.

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Section 1 – Background of the Issues

1.0 Background from Prior Rate Case.

Marshall Magruder was an intervenor in the first Arizona-American Water Company (AAWC or Company) rate case in Commission Dockets W/SW-01303A-08-0227 (hereafter The First Rate Case). The background and resume for Marshall Magruder is found in Appendix A of the Magruder Direct Testimony of 9 January 2009 in that case and is not repeated herein.

During this First Rate Case, Marshall Magruder proposed that conservation be a significant driver for water volumetric rates using a steep inverse slope Rate Structure, with up to ten tiers to make price break points "visible" and "obtainable" so that customers can see the savings by reducing water consumption. These multiple breakpoints are used so a reasonable person could conserve and attain a lower rate, that is respond to clear "price signals". He also stressed that with a low initial volumetric rate, special adjustments for low-income customers and those on fixed-incomes are not necessary. The Rate Structure should be designed so all customers can have an adequate water "life line" water at a lowest cost. This avoids the administrative costs to establish, monitor and advertise a "low-income" rate program, as this would be build into the Rate Structure used by all, e.g., the "life-line" first tier rate. He also proposed that all "fees and miscellaneous charges" be consolidated along with the Company's Rules and Regulations.

The resultant Commission Decision and Order No. 71470 (8 December 2009) ordered the Commission Staff and Company propose a rate consolidation testimony and schedules for all the AAWC water and sewage water districts in Arizona.

1.1 Issue 1 – Should Water District Rates Be Consolidated?

Q. Have you considered how the Rate Structure should be focused?

A. Yes. In the First Rate Case, the Magruder Testimonies used the Company's own witness and his prior testimonies evidence to support Rate Consolidation. Please see Appendix A for Exhibit MM-1, for an excerpt from that testimony.

1.1.1 Factors that Influence Rate Consolidation.

Q. What factors influence Rate Consolidation?

A. The factors that should be considered for Rate Consolidation, from the prior Magruder testimony (attached as **Exhibit MM-1**) in the Last Rate Case, which he fully supports, are as follows:

a. The product, water or sewage removal, of the Company's services is the same in all water and sewage water districts.[1] The focus on "product" safe delivery or removal should dominate decisions.

b. The services provided by the Company are the same in all districts.

c. The infrastructure requirements, in terms of engineering standards, are the same in all districts, thus directing that certain engineering and operations must be built into the system.

d. The quality of customer water in terms of water purity, public health and safety are the same for all districts.

e. The ability to meet customer water and sewage water demands is the same for all districts including adequate backup equipment, storage and tank maintenance.

f. The administrative requirements, in terms of meter reading, billing and call centers, are the same for all districts.

g. The operations and maintenance requirements are the same for all districts and consolidation smoothes out high swings in rates. Larger operations permit more specialists within the Company that no district could afford.

h. The equipment replacement actions use the same standards for replacing equipment that has reached the end of its effective life. This enhances cost sharing and savings due to economies of scale

i. The requirements for new customers, due to development and growth, now implemented by the Commission, require all new line extensions and equipment to be funded in advance by the new customers (or developer) and not by existing customers. However, the Company's capital cost for improvements such a new infrastructure needs, a replacement well, larger storage tank, smart meters, expanded call center, are all part of the total Company revenue requirement.

j. All districts have non-periodic (and sometimes emergency) major expenses. If passed directly just to the customers that will benefit will cause major increases in customers' rates; however, when there are many customers, these expenses can be most easily absorbed by larger numbers of customers without undue hardship. Many times these are unexpected.

k. The interconnection of two districts is not a critical factor as the water systems are not similar to the electrical grid with multiple paths, thus having an interconnection between two such areas has been shown to not have any significant impacts on rates, thus consolidation of non-contiguous districts would be a "nice to have, if possible," if they were contiguous but both the Company and Staff in the First Rate Case agreed that interconnectivity is NOT required for consolidation.

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[1] The term "all districts" used herein means all the AAWC water and sewage water districts in Arizona.

l. Rate case expenses will be significantly less and Commission work decreased.

m. Standardization throughout the company makes it more efficient in terms of chemicals used, tests, personnel training, monitoring, and leak management techniques.

n. Rate stability and rate swings are greatly reduced by consolidation.

o. Rate "shock" events will be reduced after consolidation, maybe going into history.

p. Public and political consternation will be reduced in the future after rates are consolidated. This company presently has a terrible reputation by its customers; mostly because of the extremely high rate changes requested in its rate cases. Personally, I doubt if it could be worse, so concerns about "consternation" are understandable but in reality mute. Therefore, since consolidation will "smooth out" and "equalize" the high cost peaks and valleys ratepayers now perceive, there could be no better time than the present to consolidate from this view point.

q. The total revenue for the Company must remain revenue neutral before and after Rate Consolidation.

r. Rate relief timing, which needs rate case-validated company revenue numbers, is critical as all the elements are now in place for this to be accomplished during these proceedings and can be accomplished without additional delays in the Company's receiving a fair rate of return on its investment.

s. Public outreach and education is essential prior to implementation, as many do not understand the issues.

t. Number of breakpoints and tiers assists water conservation for all rate categories. This is discussed in detail in Issue 2 below).

u. Residential and small commercial water rates can be identical as many small businesses are similar to homes with respect to water consumption.

v. Phase in-plans for Rate Consolidation can use a Rate Structure design to short-term cost impacts for lowest using consumers while higher consuming users develop conservation methods to reduce cost. This factor permits Rate Consolidation and Rate Structure design to reduce the differences in rates in various districts using price signals to smooth out these differences.

1.1.2 Benefits of Rate Consolidation.

Q. What are the benefits Associated with Rate Consolidation?

A. Considering the above factors have lead to many benefits for the Company, Customers and Commission, including providing the same benefits as today and the same benefits for "all" customers in all water districts. As shown in Table 1 below, these benefits are summarized:

Table 1 – Customer, Company and Commission Benefits Associated with the Factors Considered for Rate Consolidation			
Benefit	**For the Customer**	**For the Company**	**For the Commission**
Product	Same for all	Same for all	Same for all
Services	Same for all	Same for all	Same for all
Infrastructure requirements	Same for all	Same for all	Same for all
Water quality	Same for all	Same for all	Same for all
Meet customer demands	Same for all	Same for all	Same for all
Administrative requirements	Same for all	Easier to administer	Same for all
Operations and Maintenance	Same for all	Easier to manage	Same for all
Equipment replacements	Same for all	Same for all	Same for all
New customer costs	No rate impacts	New customer pays	Same for all
Major non-periodic expenses	Same for all	Same for all	Same for all
Interconnections	Not required	Not required	Not necessary
Rate case expenses	Customers save	Company saves	Significantly less work
Standardization	Same for all	Fewer procedures	Easier to regulate
Rate Stability and Swings	Less future changes	Less future changes	Less future changes
Rate "shock"	Few, if any, future rate shock events	Permits gradualism instead of "shock"	Uses gradualism instead of "shock"
Public and Political Consternation	Already happened; to reduce after consolidation	After consolidation, future changes are smaller	Less complaints, after consolidation
Impact on Company revenue	No impact	No impact	No impact
Rate Relief Timing	Now is best time for all districts	Company's revenue needs can be met	Reduced future rate case efforts
Public Outreach and Education	Many customers have incorrect ideas about their rates	Company has held conducted and education campaign	Commission benefits by reducing number of water utility complaints
Number of Breakpoints and Tiers	Provides more Price Signals, reduces bills for conservation	Allows customers to "see" impacts of conservation	Should aid in conserving water
Residential and Small Commercial rates the same	Due to similarity in size and function, gives businesses ability to conserve with less usage	Fewer tariffs to implement	Less computations during audits
Phase In Plans	Multi-year plan to reduces impact	No impact if revenue neutral	Implements gradualism

1.1.3 Cost for Rate Consolidation.

Q. What are the costs Associated with Rate Consolidation?

A. Each of them above rate consolidation factors might have a "cost" to the customers, the Company and the Commission. As shown in Table 2 the "costs" are summarized.

Table 2 – Customer, Company and Commission Costs Associated with the Factors Considered Rate Consolidation			
Cost	**For the Customer**	**For the Company**	**For the Commission**
Product	Same for all	Same for all	Same for all
Services	Same for all	Same for all	Same for all
Infrastructure requirements	Same for all	Same for all	Same for all
Water quality	Same for all	Same for all, centralized labs	Same for all

Table 2 – Customer, Company and Commission Costs Associated with the Factors Considered Rate Consolidation			
Cost	**For the Customer**	**For the Company**	**For the Commission**
Meet customer demands	Same for all	Same for all	Same for all
Administrative requirements	Same for all	Less unique administration	Same for all
Operations and Maintenance	Same for all	More specialists	Same for all
Equipment replacements	Same for all	Larger order quantities	Same for all
New customer costs	No rate impacts	New customer pays	Same for all
Major non-periodic expenses	Same for all	Same for all	Same for all
Interconnections	Not required	Not required	Not necessary
Rate case expenses	Customers save	Company saves	Significantly less work
Standardization	Same for all	Fewer procedures	Easier to regulate
Rate Stability and Swings	Smaller rate swings and changes	Better financial management	Smaller future changes
Rate "shock"	Company can't have a worst reputation, thus future is better	Less a future concern with smoother, gradual changes	Smaller future rate changes
Public and Political Consternation	Getting through consolidation is when public complains	Excessive complaints until longer-term benefits are obvious	Present complaints are short-term due smoother future rates
Impact on Company revenue	No impact	No impact	No impact
Rate Relief Timing	Future costs to be higher	Reduces Company losses	Lower future rate case costs
Public Outreach and Public Outreach and Education	Needs time to learn about Customers need to learn the basis of Rate Structure	Cost of mailers and Should conduct educational meetings	No direct costs but better understanding reduces complains
Number of Breakpoints and Tiers	Increased costs for higher consumption	Allows customers to "see" impacts of conservation	Aids in implementing a Water DSM program
Residential and Small Commercial rates the same	May increase costs if high consumption	Charges greatest users the most	Eases computations during audits
Phase In Plans	Flash-cut increases immediate impact on ratepayers	No impact if revenue neutral	Reduces rate shock, uses gradualism

All of these issues are discussed in greater detail in Magruder Exhibits MM-1 and MM-2 in Attachment A below. These Magruder Exhibits are excerpts from his Reply Brief in the First Rate Case.

The sum of a monthly fixed customer service charge and a variable charge based on the quantity of water used determine the customer monthly water bill, before and company miscellaneous fees and charges. These two elements of customer rates are discussed in 1.1.4 and 1.1.5 below. The various fees and taxes also leaved on this bill and other non-company fees are not a part of this proceeding.

1.1.4 Service Charge Issues.

What are the Service Charge issues?

In the past fifteen years, the Company has acquired the districts involved in this matter. Many were from the Citizens Utilities Company that sold these assets when it changed focus to a communications-only company. The resultant condition of these districts varied, some needed more infrastructure work than others, the ages of the districts varies, however, the benefits of consolidation need further discussion than summarized above.

The Cost of Service (COS) is one element determined in a rate case and is reflected in as a fixed monthly customer Service Charge. The company's target for $5/8^{th}$ inch service charge is $14.86 in its Version 2.0 software program; however, $16.97 was proposed in its Rebuttal. The primary purpose of the Service Charge is to fund the infrastructure, administration and administrative expenses to always deliver safe water to its customs. In general, these are fixed costs and usually described as the "meter" fee just to be able to receive water.

1.1.5 Water Volumetric Rate Issues.

What are the Volumetric Rate issues?

The second component for rates is a volumetric water charge based on the quantity of water used. This is the ratepayer's "cost of water" or COW and varies based on how much water the customer consumes in a month. The customer's meter reads the volume of water that passes by the meter since the prior reading, and this "volume" of water (with some standard and approved corrective factors used to normalize the readings) is then multiplied by the designated volumetric rate (in dollars per 1,000 cubic feet of water) for the monthly COW charged to the customer. The development of a Rate Structure, see Issue 3 below, is how the COW varies by *customer class* (such as residential, business/commercial, and others), *customer category* within the class based on size of water pipe connected to the meter, and total volume of water consumed in the monthly reading.

1.1.6 Computation of a Customer's Water Bill.

Q. How is the Total Customer cost for water computed?

A. Simply, for a specific customer class and customer category, the Customer Charge is then added to the Cost of Water to determine a customer's Water Bill. The Cost of Water uses corrected volume-consumed times the structure of rates for the total volume consumed.

1.2 Issue 2– Should Rate Structures Be Conservation Oriented?

Q. Have you considered how the Rate Structure should be focused?

A. Yes. In the First Rate Case, the Magruder used the Company's own witness Mr. Hebert and his prior testimonies evidence to support Rate Structure. Please see Appendix A for **Exhibit MM-2**, for an excerpt from that testimony.

1.2.1 Factors that Influence Rate Structure.

Q. What factors influence the Design of the Rate Structure?

A. The factors that should be considered for the design of the Rate Structure are similar to those for Rate Consolidation; however, the Rate Structure needs careful consideration, as this is how changes in rates directly impact the customers. It is important to note that the Total Revenue not change when proposing any Rate Structure. The Total Revenue raised from the customers must equal the Commission-determined Total Revenue allowed from a rate case.

In summary, many different Rate Structures can be designed to equal the desired Total Revenue requirements, as this structure determines which customer classes, customer categories and volumetric costs to achieve the total revenue allowed.

The cost impact on each customer needs to be the primary consideration when design the Rate Structure. In order to achieve the Total Revenue, the following factors should be considered for Rate Structures that differ from those involved in Rate Consolidation in 1.1 above.

a. The balance between revenue from the residential, business and other unique or specialized customer *classes* such as for private fire companies, irrigation, and other purposes.

b. The balance between revenue raised from each *customer category* (usually the size of the pipe) within a customer class is very dependent on the number of customers in that category and this will have significant impacts on the total revenue for a customer class.

c. The revenue versus costs for miscellaneous charges and fees should be revenue neutral as discussed in more detail in 1.5 in Issue 5 below. These should not influence the design of Rate Structure.

d. The revenue versus capital costs for new residential developments or new customers, including line extensions, should also be revenue neutral, thus these costs should not influence Rate Structure design but may impact the total revenue requirements.

e. Rate Structure design should "gradually" [e.g., using gradualism] introduce rate changes to customers and significant rate changes, called "rate shock" should be avoided if at all possible. The long-term impacts from Rate Consolidation will reduce future rate shock; however, in order to initially achieve Rate Consolidation, due to the major differences in the existing rates, carefully designing the Rate Structure can be used to reduce the one-time impact of Rate Consolidation.

f. Public opinion needs to be considered when changing the Rate Structure.

g. Low-income customers and those on "fixed" income need to be considered when designing the residential Rate Structure. If "life line", or very low rates are used for the first several thousand gallons consumed, then these two customers types should be able to have low rates within the designed Rate Structure and not having a special, low or "fixed" income rate category or an adjustment.

h. The total revenue for the Company must remain revenue neutral in the Rate Structure design.

i. Number of breakpoints and tiers are designed to assist in water conservation for both residential and commercial rate classes. This will be discussed in greater depth in Section 3 below.

j. Residential and small commercial rate classes can be designed to common, as many small businesses are similar to homes with respect to water consumption. Many small businesses are "Mom and Pop" stores, and the same conservation processes can apply to both.

k. Phase in-plans for Rate Consolidation can use a Rate Structure design to short-term cost impacts for lowest using consumers while higher consuming users develop conservation methods to reduce cost.

l. For those who live in communities under local administration, such as by a homeowner's association (HOA), the water conservation "price signals" from the Rate Structure will impact all in the community. Since all in the community usually are customers of the local water company, then rate changes that influence community decisions, such as irrigation and "green lawn" requirements may have to change if the price signal is beyond the affordability capabilities of the HOA.

m. For businesses that have high water consumption volumes, such as a restaurant, commercial swimming pool, private fire district, or golf course, either a unique rate category needs to be developed for that group of customer. The resultant unique rate category or special rate must be integrated into the overall Rate Structure when determining the Total Revenue for the Company.

1.2.2 The Influence of Water Conservation on Design of the Rate Structure.

Q. Why is Water Conservation as design factor for Rate Structures?

A. Arizona, like the rest of the Western United States, is water poor. At the present overdraft of the state's aquifers and the state's position in the Colorado River Compact, the water resources in our state cannot sustain consumption at the present rate. Water conservation should be a driver in designing the Rate Structure by having the lowest "rates" for those who consume the least volume of water and much higher rates for those who consume the greatest volume of water. This will send a clear "price signal" to the highest water consumers and lowering their monthly water will require a change in their water consumption.

The study in the Company's Rebuttal of 7 April 2010, "Arizona-American Water Company's Anthem Water District: The Effect of Tiered Water Rates on Water Consumption"[2] shows that price signals in the Tier Design produced a 5% lower consumption in this study.

1.2.3 *Influence of Low and Fixed-Income Customers on the Design of the Rate Structure.*

Q. Can a Rate Structure design account low-income and fixed-income customers?

A. Most definitely, yes.

In the Last Rate Case, a Company's witness stated that a person only needs a minimum of about 300 gallons a month to live, and in my opinion, with a minimal quality of life. For all residential rate categories, increasing this by at least and order of magnitude so that the first 4,000 gallons consumed per month has a very low cost to all customers.

In fact, due to this low cost, all other customers in each rate category will be both benefiting and subsidizing these first 4,000 gallons.

As proposed in Section 2 below, this will be a "lifeline rate." This lifeline rate is available in all residential rates categories.

1.2.4 The Benefits from a Responsive Design of the Rate Structure.

Q. What are the benefits associated with the Design of Rate Structure?

A. Considering the above factors and considerations, have lead to many benefits for the Company, Customers and Commission, including providing the same benefits as today and the same benefits for rate classes and rate categories of customers. Table 3 below summarizes the benefits by using the above factors and considerations:

Table 3 – Customer, Company and Commission Benefits Associated with the Factors and Considerations for the Rate Structure Design

Benefit	For the Customer	For the Company	For the Commission
Balance of revenue from Customer Classes	Used to shift costs between classes	No direct impact	Fair and Reasonable considerations
Balance of revenue within a Rate Category	Used to shift costs within a Rate Category, used for "lifeline rates"	No direct impact	Fair and Reasonable considerations
Revenue from Miscellaneous charges and fees	Revenue neutral	No direct impact	Fair and Reasonable considerations
New Development Capital costs	Should be born by the developer not existing customers	Negotiation costs with developers	Should review to determine if prudent
Gradualism	Reduces rate shock	Fewer complaints	Preferred approach

[2] By Miles H. Kinger, Rate Analyst, AAWC, dated 8 March 2010.

Table 3 – Customer, Company and Commission Benefits Associated with the Factors and Considerations for the Rate Structure Design			
Benefit	**For the Customer**	**For the Company**	**For the Commission**
Public Opinion	Provides feedback to the company and Commission	Used to allocate revenue to classes and categories	Fair and Reasonable considerations
Low and Fixed-income Rates	Very low "Life Line" rates for first residential rate category.	Fair and Reasonable design	Fair and Reasonable considerations
Total Revenue	Total customer costs to equal total revenue	Requires Total Revenue from customers	Fair and Reasonable considerations
Breakpoints and tiers	Designed to allow customers to achieve lower rates through conservation which needs many tiers AND noticeable changes between rates for each rate tier	Used to allocate revenue within a rate category	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Used to shift costs between classes	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Phase-in Rate Changes	Spreads out cost over several years, reduced rate shock	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Home Owners Association Requirements	May cause excessive water use	No direct impact	Fair and Reasonable considerations
Unique Rate Classes	To benefit a unique customer requirement	Permits flexibility in decision making	Fair and Reasonable considerations

1.2.5 Cost Impacts to Consider for the Design of the Rate Structure.

Q. What are the costs Associated with Rate Structure Design?

A. Each of them above rate consolidation factors might have a "cost" to the customers, the Company and the Commission. As shown in Table 4 the "costs" are summarized.

Table 4 – Customer, Company and Commission Costs Associated with the Factors and Considerations for the Rate Structure Design			
Cost	**For the Customer**	**For the Company**	**For the Commission**
Balance of revenue from Customer Classes	Some to have higher or lower rates	No direct impact	Fair and Reasonable considerations
Balance of revenue within a Rate Category	Can provide "lifeline" rate, some with higher/lower rates	No direct impact	Fair and Reasonable considerations
Revenue from Miscellaneous charges and fees	Standard charges applied to all customers	Easier to administer	Fair and Reasonable considerations
New Development Capital costs	Present customers don't pay costs for future customers	Negotiations required for contracts	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Some to have higher or lower rates	No direct impact	Fair and Reasonable considerations
Rate Structure promotes Gradualism	Some to have higher or lower rates	No direct impact	Fair and Reasonable considerations
Public Opinion	Higher costs upset customers	Complaints need to be	Commission must show

Table 4 – Customer, Company and Commission Costs Associated with the Factors and Considerations for the Rate Structure Design			
Cost	**For the Customer**	**For the Company**	**For the Commission**
		managed	it is Fair and Reasonable considerations
Low and Fixed-income Rates	Same for all residential customers, but higher usage customers will pay	No direct impact	Fair and Reasonable considerations
Total Revenue	Total customer costs to equal total revenue	Requires Total Revenue from customers	Fair and Reasonable considerations
Breakpoints and tiers	Decreases costs for lowest consumption and increased costs for highest consumption	Reduced costs with standard tiers	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Some customer classes with higher and others with lower rates	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Phase-in Rate Changes	Some whose rates are being reduced have to wait	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Home Owners Association Requirements	Can penalize homeowners	No direct impact	Fair and Reasonable considerations
Unique Rate Classes	Unique customers must pay fair and reasonable rates	Negotiation expenses	Fair and Reasonable considerations
Total Revenue	Total customer costs to equal total revenue	Requires Total Revenue from customers	Fair and Reasonable considerations
Breakpoints and tiers	Decreases costs for lowest consumption and increased costs for highest consumption	Reduced costs with standard tiers	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Some customer classes with higher and others with lower rates	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Phase-in Rate Changes	Some whose rates are being reduced have to wait	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Home Owners Association Requirements	Can penalize homeowners	No direct impact	Fair and Reasonable considerations
Unique Rate Classes	Unique customers must pay fair and reasonable rates	Negotiation expenses	Fair and Reasonable considerations

1.2.6 Tier Design Issues

Q. What are design issues involving the selection of Tiers in the Rate Structure?

A. Tier design is the most critical element when designing the Rate Structures for residential and commercial rate categories. The end result for a rate category needs to include the

a. Number of tiers,

b. Tier width in terms of thousands of gallons (kgals), and

c. Fair and Reasonable rate set for the tier.

The number of tiers needs to look at the number of customers at each kgal of consumption in the rate category. Due to the Poisson probability distribution[3] found with customer consumption patterns, the customer median consumption is lower than that for the mean (average consumption). This leads to requiring at least one or more small tier widths before the median customer, and then increasing tier width when beyond the mean customer consumption.

By increasing the number of tiers, a customer should be able to see how much consumption needs to be reduced to lower the volumetric charge. In this party's opinion, having up to ten tiers available could greatly assist in improving this visibility.

An important concern is providing in the First Residential Tier a very low rate and adequate tier width so that adequate water is available at a low cost for low and fixed-income customers. If this same First Residential Tier is used for all residential customer categories, then the higher tiers will have to have a higher rate to compensate if the First Tier very low rate so the Company's Total Revenue is achieved in design of the Rate Structure.

1.2.7 Sewage Water Rate Structure Issues

Q. How do you see the design for Sewage Water Rate Structure?

A. This is another complex issue. I concur with the Company's comments concerning sewage water Rate Structure and adopting that proposed by the Company.

1.3 Issue 3 – Should Sewage Water District Rates Be Consolidated?

Q. Should Sewage Water District Rates Be Consolidated?

A. Based on the factors involved in rate consolidation, the benefits and costs, from 1.1 above, this appears to be obviously a good solution. Unfortunately, this Party has minimal experience in additional factors that influence Sewage Water issues; Magruder will adopt the Sewage Water Rates in the Company's Rebuttal.

1.4 Issue 4 – Should All Fees and Miscellaneous Charges Be Consolidated?

Q. How are these fees and miscellaneous charges now scheduled?

A. A separate schedule for these fees and charges exists for each water and sewage water district. The are variations in the fee or charge for the same event which appears to have remained for many years, sometimes a fee or charge from a prior owner is the cause of this difference.

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[3] The Magruder Testimony in the Last Rate Case erroneously referred to a X^2 (chi) squared distribution; however, after discussions with a small water utility manager (also a PhD in astrophysis), I was convinced that a Poison Probability Distribution function was a better fit.

This issue was presented in the Last Rate Case and deferred to this consolidation case and is discussed in greater detail in **Exhibit MM-1**, in 4.2.4, "Consolidation of Miscellaneous Charges and Fees."

Q. Is there any justification for not consolidating the various fees and miscellaneous charges?

A. No, therefore these fees and charges should be consolidated into one schedule for water and sewage water.

1.5 Issue 5 – Should the Rules and Regulations Be Consolidated?

Q. How are the Company's Rules and Regulations organized?

A. Each water and sewage water district has its own Rules and Regulations (R&Rs), many not appearing to be similar to others. A Consolidated R&Rs facilitates both customer understanding and Company operations by reducing the volume of redundant and conflicting rules and regulations. A generic set of R&Rs should be used throughout all districts and a district specific supplement to cove the unique differences.

The consolidation of R&Rs was discussed in the Last Rate Case and deferred to the present case.

Q. Should the R&Rs be consolidated?

A. In my opinion, yes to improve efficiency and quality performance by the Company and easier understanding by its customers.

1.6 Issue 6 – Should a Water Demand Side Management (WDSM) Program Be Established?

Q. What is a Water Demand Side Management program?

A. Using the analogies from both the electricity and natural gas utilities, these would be programs whereby customer demands for water are permanently reduced by a change in equipment or procedures. Such a WDSM program would compensate the Company for its part using the same process now being used by the Commission for these other two utilities.

Q. What are some examples of a Water Demand Side Management program?

A. Frankly, I made up this kind of program; however, it is a realistic way to reduce water consumption. Here are a few examples:

a. Providing a pool cover mechanism to reduce evaporation and water loss from a pool.

b. Providing incentives for purchasing a dish or clothes washer that used significantly less than the model now being used by a customer.

c. Providing incentives for a car wash facility to recycle water.

d. Replacing the showerheads in a school's shower room with low-flow versions.

e. Providing low-water trees for customers that replace trees that consume lots of water.

f. Working with gardeners to set drip irrigation timers to optimize water usage.

Each of the WDSM programs would need to be submitted to the Commission for approval prior to implementation. Further, upon approval, a small "adjustor" would be added to customer's bills to fund these programs.

Obviously, any WDSM program will lose expected revenue for the Company. This avoided cost will need to be factored into the Company's compensation based on measured performance results for implementing such a program.

1.7 Issue 7 – Should Water Loss Be An Incentive or Disincentive?

Q. Why is water loss a concern?

A. In general, the Commission seems to be of the opinion that when the total water loss by a water utility is considered excessive when exceeding 10%. This results in a goal not to exceed a 10% wastage factor. It is this party's opinion that NO water losses are beneficial to the Company or the customers. Just like transmission (energy) losses in the electricity industry, water losses are also charged to the customers with higher costs that include a product not used but wasted in the delivery process.

Q. Are there any programs to incentivize lowering Water Loss?

A. To the best of the knowledge of this party, none are known to exist at this Commission and probably very few are elsewhere.

At present, the implementation of "smart meters" is providing the Company the capacity to actually understand the actual real-time customer demands and the ability to monitor water flow in ways not dreamed of a decade ago. Using this technology and other innovative processes, the Company should be able to monitor its system much closer, in particular, to determine if there are water leaks in its mains or other parts of its system. This could be the basis for creating a Water Loss Management program.

Q. Should a Water Loss Management Program have disincentives?

A. Yes, if a target water loss Goal is set with the Commission with agreement by the Company, and this goal is not obtained, then the agreement's disincentives should be exercised.

Section 2 – Proposals Concerning the Issues in this Matter

2.0 Resolution of the Issues

Q. How were Rates Consolidated in this proposal?

A. First, the total revenue water districts were consolidated and then reallocated to customer classes as shown for Issue No. 1. Based on these revenue reallocations, changes to Service Charges, and rate tiers designed into the Rate Structure, then rates are determined for each customer category for Issue No. 2.

Second, the sewage water consolidated rates proposed by the Company are adopted for Issue No. 3.

Third, revenue-neutral Fees and Miscellaneous charges are consolidated in Issue No. 4.

Fourth, the Company's Rules and Regulations are consolidated to be user-friendly for Issue No. 5.

Fifth, the Company is requested to propose a Water Demand Side Management (WSDM) program as a way to provide incentives for customers to reduce water demands in Issue No. 6.

Sixth, the Company is requested to propose a program with financial incentives and disincentives to reduce water losses for each water district for Issue No. 7.

2.1 Issue No. 1 – Proposed Water District Rate Consolidation

Q. How did you consolidate the water district revenues?

A. Based on the First Rate Case and use of the Company's Water Model, version 3, it as possible to use the factors and considerations for Rate Consolidation in the design of Rate Structures for the water districts that reduce the total rate changes impact.

It was decided to consolidate the total revenue requirements for all water districts based on the Company's evidence and experiences above and also as summarized in **Exhibit MM-1**.

Second, due to the significant differences in Rate Structures for the water districts, consolidation is impossible without a major redesigning the Rate Structure.

Based on this decision, then a resultant Rate Structure would be necessary that was both fair and reasonable. See 2.2 for the resultant steps to design a new Rate Structure for the consolidated water districts.

Because this is a "one-time" adjustment to consolidate rates, the uses of changes in the Rate Structure are used to reduce "rate shock" impacts.

2.1.1 Proposed Total Revenue for Consolidated Rates by Customer Class.

Q. What changes are made to the revenue allocations for the residential and commercial customer classes?

A. From the customer's view, the design of the Rate Structure has the most impact, because the overall Total Revenue has been determined to be "fair and reasonable" by the Commission. How this impact each customer class and rate category involves considerations and factors previously presented above in Table 1 to Table 4.

First, due to the potential high degree of rate shock, especially for the vast majority of customers, that is those in the residential rate class, it was determined that a reduction in revenue from the residential class could provide enough elasticity to attempt to design fair and reasonable rates.

Second, after many model iterations, by decreasing the overall revenue for the residential rate class about $1.5 million or 3% and increasing the overall revenue for the commercial rate class by about the same $1.5 million or 13%, then it was possible to minimize the vary large swings in rate changes for each water district. As shown in Table 5 below, from the Schedule H-1 we see in the below summary of consolidated water rates the proposed revenue changes. The result of the proposed Rate Structure was $514 less than the Target Total Revenue for the Company.

Table 5 – Summary of Consolidated Water Rates

Rate Class	Revenue from Consolidated Rates	Target Revenue	Difference
Residential (a)	**55,895,800**	**57,468,802**	**(1,573,002)**
Commercial	**14,362,261**	**12,766,423**	**1,595,838**
OPA (b)	**290,552**	**205,193**	**85,359**
Sale For Resale (c)	**297,189**	**295,157**	**2,031**
Misc- Non-Potable	**2,053,233**	**2,341,241**	**(288,009)**
Private Fire	**632,214**	**454,946**	**177,268**
Total	**73,531,246**	**73,531,762**	**(514)**

(a) Includes Multi-family - rates are not consolidated.
(b) OPA in Aqua Fria (State Prison) and in Mohave consolidated to Commercial rates.
(c) Includes Peoria Public Interruptible in Sun City, PI Surprise and Water Contract in Agua Fria

Third, this analysis used the same assumptions found in notes (a) to (c) to the above Table and other changes were not made in the other rate classes other than raising the fire hydrant fee from $10 to $12 to conform to higher rates found in other companies' tariffs. The other revenue changes for these rate classes were previously in the model and carried forward in this analysis.

Fourth, the "Total Revenue" results are shown in proposed Schedule H-1 that has the present, non-consolidated, and consolidated revenue impacts from the design used for the new Rate Structure.

2.1.2 Proposed Consolidated Revenue Allocations to Water Districts.

Q. What were the results of allocating the Total Revenue to Water Districts?

A. These revenues are changed from the present to the proposed revenues after many iterations of the model, for the consolidated revenue for the residential and commercial customer classes is shown in Table 6 below:

Table 6 – Consolidated Revenue Changes from Present Revenue for Residential and Commercial Rate Classes by Water District

Water District	*Residential Revenue*	*Commercial Revenue*
Sun City	**Decrease 3%**	**Increase 22%**
Sun City West	**Decrease 21%**	**Decrease 3%**
Agua Fria	**Decrease 8%**	**Increase 5%**
Anthem	**Decrease 5%**	**Increase 15%**
Tubac	**Decrease 3%**	**Decrease 10%**
Havasu	**Decrease 8%**	**Insignificant**
Paradise Valley	**Increase 32%**	**Increase 29%**

2.1.3 Proposed Consolidated Rates – Allocated Total Revenue Requirements.

Q. What does Schedule H-1 Report?

A. This schedule has several tables in Table 7 that follows. First, the present revenue for each rate class is and water district shown a second table shows the Revenue Proposed Rates – Non-consolidated revenue requirements, again by rate class and water district. The third table shows the Revenue Proposed Rates – Consolidated by rate class and water district. A fourth table shows the Increase or Decrease for each rate class and water district in terms of dollars and percent change.

The model refers to this as Schedule H-1. The proposed Schedule H-1 for revenue is with $514 of the present revenue for each rate class is in Table 7 below.

In addition to the most common Residential and Commercial rate classes, the others are ones the Company also has proposed as unique rate classes. This party concurs with that assignment.

Table 7

ARIZONA AMERICAN WATER COMPANY — **Schedule H-1**
CONSOLIDATED RATES - PRESENT AND PROPOSED REVENUE

Rate Class	Revenue - Present Rates								
	Sun City	SCW	Agua Fria	Anthem	Tubac	Mohave	Havasu	PV	Total
Residential*	7,456,182	8,007,995	16,698,300	5,279,103	429,394	3,928,553	1,192,870	7,108,793	50,101,189
Commercial	1,439,034	1,182,277	4,532,525	967,874	177,484	951,785	190,594	1,954,299	11,395,872
OPA			6,832			176,554		21,806	205,193
Sale For Resale			117,062	71,929				33,843	222,917
Misc- Non Potable			427,339	834,977					1,450,798
Private Fire	46,450	67,996	120,726	86,395		26,119		7,648	355,335
Total	9,130,231	9,258,268	21,902,785	7,240,279	606,878	5,083,012	1,383,464	9,126,389	63,731,304

	Revenue Proposed Rates - Non-Consolidated								
	Sun City	SCW	Agua Fria	Anthem	Tubac	Mohave	Havasu	PV	Total
Residential*	9,524,350	8,007,995	16,698,300	10,578,548	429,394	3,928,553	1,192,870	7,108,793	57,468,802
Commercial	1,837,976	1,182,277	4,532,525	1,939,483	177,484	951,785	190,594	1,954,299	12,766,423
OPA			6,832		-	176,554	-	21,806	205,193
Sale For Resale			117,062	144,146	-	-	-	33,843	295,157
Misc- Non-Potable			427,339	1,673,165	-	-	-	-	2,341,241
Private Fire	59,333	67,996	120,726	173,123	-	26,119	-	7,648	454,946
Total	11,662,502	9,258,268	21,902,785	14,508,466	606,878	5,083,012	1,383,464	9,126,389	73,531,762

	Revenue Proposed Rates - Consolidated - Step 1								
	Sun City	SCW	Agua Fria	Anthem	Tubac	Mohave	Havasu	PV	Total
Residential (a)	9,143,065	6,340,549	15,400,953	10,100,266	416,800	3,998,932	1,101,098	9,394,138	55,895,800
Commercial	2,240,452	1,146,007	4,757,929	2,235,148	160,609	1,117,915	185,614	2,518,587	14,362,261
OPA (b)			11,071			238,753		40,728	290,552
Sale For Resale (c)			117,062	144,146				35,874	297,189
Misc- Non-Potable			391,623	1,189,440					2,053,233
Private Fire	114,452	72,950	223,792	72,150		91,544		57,326	632,214
Total	11,970,244	7,559,506	20,902,430	13,741,150	577,408	5,447,144	1,286,712	12,046,653	73,531,248
	3%	-18%	-5%	-5%	-5%	7%	-7%	32%	
Residential Increase/(Decrease)									
$ Amount	(381,285)	(1,667,445)	(1,297,347)	(478,282)	(12,594)	70,379	(91,772)	2,285,345	(1,573,002)
Percentage	-4%	-21%	-8%	-5%	-3%	2%	-8%	32%	-3%
Commercial Increase/(Decrease)									
$ Amount	402,476	(36,270)	225,404	295,665	(16,875)	166,130	(4,980)	564,288	1,595,838
Percentage	22%	-3%	5%	15%	-10%	17%	-3%	29%	13%
OPA Increase/(Decrease)									
$ Amount	-	-	4,239	-	-	62,199	-	18,922	85,359
Percentage	0%	0%	62%	0%	0%	35%	0%	87%	42%
SFR Increase/(Decrease)									
$ Amount	-	-	-	-	-	-	-	2,031	2,031
Percentage	0%	0%	0%	0%	0%	0%	0%	6%	1%
Misc - Non-Potable Increase/(Decrease)									
$ Amount	231,433	-	(35,716)	(483,725)	-	-	-	-	(288,009)
Percentage	96%	0%	-8%	-29%	0%	0%	0%	0%	-12%
Private Fire Increase/(Decrease)									
$ Amount	55,119	4,954	103,066	(100,973)	-	65,425	-	49,678	177,268
Percentage	93%	7%	85%	-58%	0%	250%	0%	650%	39%

For (a), (b), and (c), see Table 5.

2.2 Issue No. 2 – Proposed Conservation-Oriented Water Rate Structures.

The design of the Rate Structure required much iteration with the Company's model.

2.2.1 Proposed Rate Structure meets the Total Revenue Requirements.

Q. How were the Rate Structures for the Customer Rate Categories determined?

A. First, consolidated rates must have the same total revenue as the present rates. This is was determined in 2.1 above; however, it was the design of the Rate Structure that caused changes in the proposed Revenue requirements.

Second, the resultant Rate Structure design used the factors and considerations in 1.2 and Tables 1 to 4 above.

2.2.2 Proposed Low-income and Fixed-income "Lifeline" Rates.

Q. How were the Lifeline Rates determined?

A. During model iterations, the First Tier rate was made as low as possible to meet the total revenue requirements.

The Lifeline rate is $0.83 per 1,000 gallons for the first 4,000 gallons, or $3.32 plus the proposed Service Charge ($15.00) for a total of $18.32, if all 4,000 gallons of water are consumed. This party, with a large home, two adults and two dogs, averages about 5,000-6,000 gallons per month with some months being as low as 3,000 gallons at a cost of $16.49. In my opinion, this a both fair and reasonable charge for water in Arizona for low and fixed-income residential rates.

2.2.3 Proposed Service Charges.

Q. How were the Service Charges determined?

A. Service Charges were determined, in general, similar to those in the model with the 1-inch rate Service Charge lowered considerably. This was done to discourage customers from changing to lower flow meters based only on the Service Charge, especially for safety reasons due to the required water flow requirements for home fire sprinkler systems. As will be shown under the proposed "fees" in 2.4 below, a "change meter fee" is being proposed to be $150. In the next rate case, the 1-inch service charge should be increased more than others. Table 8 below shows the Proposed Service Charges for each rate category.

The ratio of the size of each rate category was considered but not used in its finest detail because at present customers are requesting to change to lower (and possibly unsafe) rate categories just to save on the Service Charge.

Table 8 – Proposed Consolidated Service Charges for Residential and Commercial Rate Classes by Rate Category.

Rate Category	*Residential Service Charge*	*Commercial Service Charge*
5/8 – 3/4 inch	$15.00	$15.00
1 inch	$25.50	$25.50
1 1/2 inch	$75.00	$75.00
2 inch	$100.00	$100.00
3 inch	$225.00	$225.00
4 inch	$375.00	$375.00
6 inch	$750.00	$750.00

2.2.4 Proposed Consolidated Rates by Tier.

Q. What determined the Consolidated Rates?

A. Since this v3 model is limited to only five tiers, and increasing the ratio between the First (Lifeline) Tier in some rate categories; the resultant consolidated rates are in Table 9. Only four Tiers are used for Commercial Rates.

Table 9 – Proposed Consolidated Rates by Tiers
(in $ per 1000 gallons)

Tier	*Residential Rate*	*Commercial Rate*
1	$ 0.83	Not applicable
2	$ 1.90	$ 1.90
3	$ 2.96	$ 2.96
4	$ 4.50	$ 4.50
5	$ 6.00	$ 6.00

If additional tiers were available in the model, the consolidated rate differences between tiers would be less.

2.2.5 Proposed Tiers for Residential and Commercial Rate Categories.

Q. What determined the Tiers?

A. The Tiers were adjusted in the model to make visible breakpoints that a customer could see and therefore make the necessary changes in water usage to lower his monthly billing. These are shown in Table 10 from the model, the Assumptions. Table 10 provides the values used in making this analysis; however, the spacing and "tab colors" were deleted.

Table 10 – Assumptions for Proposed Residential, Commercial, OPA, Turf and Blocks (next 2 pages).

Residential Rates and Blocks			Commercial, OPA, Turf Rates and Blocks		
5/8" - 3/4"			**5/8" - 3/4"**		
Tab color			Tab color		
Customer Charge		$ 15.00	Customer Charge		$ 15.00
First	4,000	$ 0.8300	First		$ 0.8300
Next	6,000	$ 1.9000	Next or First	10,000	1.9000
Next	10,000	$ 2.9600	Next	10,000	2.9600
Next	20,000	$ 4.5000	Next	20,000	4.5000
Over	40,000	$ 6.0000	Over	50,000	6.0000
1"			**1"**		
Tab Color			Tab Color		
Customer Charge		$ 25.50	Customer Charge		$ 25.50
First	4,000	$ 0.8300	First		$ 0.8300
Next	6,000	$ 1.9000	Next or First	10,000	1.9000
Next	10,000	$ 2.9600	Next	15,000	2.9600
Next	20,000	$ 4.5000	Next	25,000	4.5000
Over	40,000	$ 6.0000	Over	50,000	6.0000
1 1/2"			**1 1/2"**		
Tab Color			Tab Color		
Customer Charge		$ 75.00	Customer Charge		$ 75.00
First	25,000	$ 0.8300	First		$ 0.8300
Next	75,000	$ 1.9000	Next or First	100,000	1.9000
Next	100,000	$ 2.9600	Next	100,000	2.9600
Next	100,000	$ 4.5000	Next	100,000	4.5000
Over	100,000	$ 6.0000	Over	100,000	6.0000
2"			**2"**		
Tab Color			Tab Color		
Customer Charge		$ 100.00	Customer Charge		$ 100.00
First	25,000	$ 0.8300	First		$ 0.8300
Next	75,000	$ 1.9000	Next or First	100,000	1.9000
Next	100,000	$ 2.9600	Next	100,000	2.9600
Next	100,000	$ 4.5000	Next	100,000	4.5000
Over	200,000	$ 6.0000	Over	200,000	6.0000
3"			**3"**		
Tab Color			Tab Color		
Customer Charge		$ 225.00	Customer Charge		$ 225.00
First	50,000	$ 0.8300	First		$ 0.8300
Next	50,000	$ 1.9000	Next or First	100,000	1.9000
Next	100,000	$ 2.9600	Next	100,000	2.9600
Next	100,000	$ 4.5000	Next	100,000	4.5000
Over	200,000	$ 6.0000	Over	200,000	6.0000

Table 10 (Continued)

4"			4"		
Tab Color			Tab Color		
Customer Charge		$375.00	Customer Charge		$375.00
First	100,000	$0.8300	First		$0.8300
Next	100,000	$1.9000	Next or First	200,000	1.9000
Next	100,000	$2.9600	Next	100,000	2.9600
Next	200,000	$4.5000	Next	200,000	4.5000
Over	300,000	$6.0000	Over	300,000	6.0000
6"			**6"**		
Tab Color			Tab Color		
Customer Charge		$750.00	Customer Charge		$750.00
First	100,000	$0.8300	First		$0.8300
Next	100,000	$1.9000	Next or First	200,000	1.9000
Next	100,000	$2.9600	Next	100,000	2.9600
Next	200,000	$4.5000	Next	200,000	4.5000
Over	400,000	$6.0000	Over	400,000	6.0000

2.2.6 Other Proposed Consolidated Rates.

Q. What other rates are being consolidated?

A. In addition to the Residential and Commercial rate categories, others were included or not included in Table 10 above. Included in the Consolidated Rate Schedule for Commercial customers are the present OPA and Turf Rates.

2.2.7 Proposed Non-Potable Water Rates.

Q. What are the charges proposed for non-potable water?

A. The Non-Potable Water Rate only has one charge, a volumetric consumption charge of $2.50/1000 gallons, as proposed by the Company, which this party also concurs. No service charge is proposed. The Company may propose a different rate structure for non-potable water in the future.

2.2.8 Proposed Private Fire and Hydrant Rates.

Q. Do you agree with the Company's proposal for Private Fire and Hydrant Rates?

A. Yes. These are given in Table 11 below. Only a Service Charge is used.

Table 11
Private Fire and Hydrant Rates

Service	Customer Charge
2 inch	$10.00
3 inch	$22.50
4 inch	$40.00
6 inch	$90.00
8 inch	$160.00
10 inch	$250.00
12 inch	$360.00
Hydrants	$12.00

2.2.9 Rates Classes that are Not Proposed to be consolidated.

Q. What Rates Classes are not being consolidated?

A. Some present rate classes were not consolidated in the Model and were also recommended by the Company for not being consolidated during this rate case. The Company has proposed that the following water rate classes not be consolidated:

C2M3 – Arizona Water Contract
C5M1 – Agua Fria – OWU PI Surprise
A5M1 – Sun City Public Interruptible - Peoria
E7M2 – Anthem Wholesale (Phoenix) OWU
Mohave and Havasu Apartment Classes

And the following sewage water rate classes were also not consolidated:

A2MSP – Sun City Sewer Paradise Park I/U
E5M2 – Anthem Wholesale (Phoenix) OWU
P7A1 – Mohave Sewer Effluent Sales

This party agrees with the non-consolidation rationale in Heppenstall Rebuttal.

2.3 Issue No. 3 – Proposed Sewage Water District Rate Consolidation

Q. How did you consolidate the sewage water district revenues?

A. For the same reasons and rationale used in consolidating the water districts, it was decided to consolidate all the sewage water districts.

Second, due to the significant differences in Rate Structures for the sewage water districts, consolidation is impossible without also redesigning the Rate Structure.

Based on this decision, the Consolidated Rates and Rate Structure for all sewage water districts proposed by the Company appears to have met the reasonable and fairness criteria and should be approved.

2.4 Issue No. 4 – Proposed Consolidated Fees and Miscellaneous Charges

Q. Has the Company proposed consolidation of its Fees and Miscellaneous Charges?

A. No, as the Last Rate Case deferred this issue to the ongoing proceedings.

Q. Have these Consolidated Fees and Miscellaneous Charges been proposed before?

A. Yes. This party proposed these in a table found in **Exhibit MM-2** in 4.2.4; however this table, with minor modifications, is proposed in Table 12 below.

Table 12. Present and Proposed Consolidated Water Fees and Miscellaneous Charges.

Miscellaneous Customer Cost	Company's		**Magruder Proposed Fee or Charge**	Variations in other water districts' charges and fees (present and proposed) by Staff and RUCO
	Present Fee or Charge	Proposed Fee or Charge		
Establish, Re-establish, Re-connect Fee (Regular hours) (Off hours)	 $ 30.00 $ 40.00	 $ 30.00 $ 40.00	 **$ 30.00** **$ 60.00**	 $ 20 to $4 0 $ 20 to $ 60
Water Meter Test (if correct)	$ 10.00	$ 10.00	**$ 75.00**	$10 to $81
Meter Re-read (if correct)	$ 5.00	$ 5.00	**$ 20.00**	$ 5 to $25
Move Customer Meter	NA	NA	**Actual Cost**	NA or Actual Cost
Replace an Existing Meter with a New Meter for a Different Rate Category at the Customer's Request	None (a new charge)	$150.00	**$150**	No charge has been established.
Non-Sufficient Funds Check Charge	$ 10.00	$ 10.00	**$ 30.00**	$10 to $25
Late Fee Charge	1.5%/ month	1.5%/ month	**2.0% /month**	NA to 1.5%/ month
Deferred Payment Finance Fee	NA	NA	**1.5% /month**	NA to 1.5% /month
Residential Deposit	2 x average bill			2 x average bill
Non-Residential Deposit	2.5 x average bill			2.5 x average bill
Deposit Required (residential or commercial), Interest on Deposit	In accordance with ACC Rule 14-2-403(B)			
New Service Line Charge (Difference based on size of line)	$130 to $1,620	$156 to $830, Actual	**Higher of $300 or Actual Cost**	$370 to $1,620 to actual cost
New Meter Installation Charge (Difference based on size of line)	$370 to $1,630	$370 to $1,890, Actual	**Higher of $150 or Actual Cost**	$130 to $6,130 to actual costs (plus $120 for AMR)

If the Company's 14 May 2010 agrees with this concept and it proposes to use the above or a modified schedule, then those should be considered to be included with the decision for this case. If, however, based on the Company and responses by other parties differ in concept or actual fees and charges, then it would be proposed that the Company propose a schedule in a tariff filing for Consolidated Fees and Miscellaneous Charges sixty days after the Commission's decision in this case, copies to all parties.

It should be noted that present or proposed "arsenic recovery", "low income" and "winter irrigation" fees, rates or charges are not implemented when rates are consolidated.

The Sewer Water tariffs also have different minimum present charges for

- Commercial Toilets (from $4.12 to $9.41, Staff recommended $12.02),
- Dish Washing Machines (from $31.43 to $75.47, Staff recommended $96.37),
- Laundry Machines (from $7.65 to $17.61, Staff recommended $22.49),

- Wash Racks (from $15.56 to $36.89, Staff recommended $47.10) and
- Rental Rooms (from $7.99 to $10.54).

Only one Consolidated Rate should be proposed for these kinds of sewage services.

2.5 Issue No. 5 – Proposed Consolidated Rules and Regulations.

Q. Has the Company proposed consolidation of its Rules and Regulations?

A. No, as the Last Rate Case deferred this issue to the ongoing proceedings.

Q. Have these Consolidated Rules and Regulations been proposed before?

A. Yes. It is recommended that the Company file with the Commission, RUCO, and all parties a Consolidated Rules and Regulations (R&R), with division supplements, if necessary, ninety days after the Commission's decision in this case. When the Company's writes a Consolidated R&R, used of customer-friendly language and terms should be used through the document, including a glossary of terms and abbreviations/acronyms. It might be suggested that, like *National Geographic*, the writing or comprehensive level be at the ninth grade level. Further, after receipt of the Commission Staff's review of the proposed Consolidated R&Rs, then within sixty days, on the Company's website these new R&Rs will be posted including a Spanish language version.

2.6 Issue No. 6 – Proposed Water Demand Side Management Program

Q. Has the Company proposed a Water Demand Side Management Program?

A. No.

Q. Why do you feel a Water DSM Program is needed for AAWC?

A. First, it is expected that the conservation-oriented Consolidated Rates will result in less water usage by its customers, as was demonstrated in the Company's Report on the Anthem rate tier impact included in its Rebuttal filing. This report demonstrated that the Company has the ability to analyze and accesses the impacts of water conservation on the usage patterns of its customers. Such a report for all water districts would be necessary, at least annually, so that the impacts of water conservation can be measured and its impact of the Company's Total Revenue from this rate case monitored, understood, and appropriate compensation, if any, provided for delivering less water to its customers. The Company should NOT lose revenue when its customers conserve water.

Second, a series of Water DSM programs for water and sewage water, such as suggested in 1.6 above, should be proposed annually to the Commission for review and possible implementation. Each such Water DSM program needs to include similar factors used by the

Commission in its electric and natural gas DSM process but adjusted for water and sewage water DSM. These programs should be proposed in an Annual Water DSM Program Report on 1 March, for review by the Commission by 1 August, for implementation on 1 October.

Third, both the lost revenue (from the Total Revenue) and implementation costs for Water DSM programs should be returned from the customers in the form of a 'Water DSM adjustor" fee. In the Company's Annual Water DSM Report, it will include how this fee is calculated. This calculation should include the Company's savings by having to deliver less water due to conservation, including electricity, O&M, equipment and supplies not used due to less products delivered than calculated in the Total Revenue.

As this is a new process, it might be advantageous to hold a workshop on this issue prior to first implementing its Water Demand Side Management programs. Again, these considerations should be included in the Company's proposed program.

2.7 Issue No. 7 – Proposed Water Management Program

Q. Has the Company proposed a Water Loss Management Program?

A. No. However, this Party recommends that this program be implemented with financial incentives for excellent performance and disincentives for poor performance discussed above in 1.7.

Q. How would you recommend such a Water Loss Management Program?

A. No, however, this Party recommends that such a program be created, through a workshop process, so that a Water Loss benchmark level is established for each water and sewage water district. Based on the results of such workshops, a financial incentive process should be developed to reward the Company for performance better than a Water Loss benchmark and to penalize the Company for performance lower than a Water Loss benchmark at the district level.

A Water Loss Management Program could be implemented within the above Water DSM process, as proposed in 2.6 above. The Annual Water DSM Report could be used to report the measured water loss for each district, and when performance is rate as "excellent", then a determined positive adjustment in Total Revenue is added and when rated as "poor", then a predetermined negative adjustment in Total Revenue be subtracted. Since Total Revenue is used to calculate the Water DSM Adjustor fee, this could be used as a way to incentivize a Water Loss Management Program. It is proposed that the Company include a Water Loss Management Program within the Water DSM process in 1.6 above.

Section 3 – Responses to Testimonies and Public Comments

3.1 Response to the Commission Staff's Proposed Consolidated Rates.

The Staff submitted Direct Testimonies by Mr. Eligah Abinah and Mr. Jeffrey Michlik on 29 March 2010, hereafter referred to as the Abinah Testimony and Michlik Testimony.

Q. Do you agree with the Abinah Testimony?

A. In general, no. The Abinah Testimony states:

> "Staff believes when and when it [rate consolidation and/or system interconnections] makes sense and where it is technically and financially feasible, rate consolidation and/or system interconnections should be seriously considered by the Commission." [3:15-18]

Response:

This appears to be the right time for rate consolidation because it makes sense, and the Total Revenue has been established through the rate case process in order to make the Arizona-American Water Company's rates both **fair and reasonable**. Continuing charging different rates for the product delivery (water or sewage water) is not fair and reasonable. "Consolidation should happen when all districts have been subject of a [recent] rate case." [**Exhibit MM-1**, 4.2.8.g]

Further, this is NOT the time to consider system interconnections because there are no perceived benefits for the Company or ratepayers. System interconnections are not being proposed by any parties. Further, Mr. Abinah testified that

> "Q. Does a utility have to interconnect in order to have a rate consolidation or STP?
> "A. No. Staff believes that in some instances physical interconnection is not technically feasible, while rate consolidation may be.
> Q. What criteria should be considered in recommending rate consolidation?
> A. ... Proximity may help psychologically getting people to accept single tariff, but **it certainly is not a requirement**. Physical interconnections should be required when system districts are closer and it is technically and financially feasible" [4:5:10 and 23-24; emphasis added]

In this party's view, this psychological benefit is certainly not technically feasible or a financial benefit. No party has recommended physical interconnections between districts.

Q. Did Mr. Abinah testify that there are other considerations necessary to recommend rate consolidation?

A. Yes. He stated the following should be considered:

a. Public health and safety [4:12-21]. In the proposed consolidations, all public health or safety concerns are being addressed only as financial considerations within the consolidated water and wastewater systems.

b. Economies of scale/rate case expenses [5:1-6]. This is a cost-saving benefit of consolidation for the Company, customers and Commission.

c. Price shock/mitigation [5:8-18]. As this party has proposed in 2.2 above, a part of the Total Revenue was shifted from residential to commercial customers as a mitigation measure to deliberately reduce price shock since there are many more residential then commercial customers. Only one water district has an overall residential rate increase (32% for Paradise Valley) and six of seven have overall rate reductions. Overall, commercial customers have rate increases for four districts between 5% and 29%, one with insignificant change, and two have decreases as shown in Table 6 above. Further, commercial customers have two ways to rapidly compensate for higher rates that are to conserve water to lower its monthly bills and/or to raise its prices. The "Anthem Report" shows that "price signals" are understood and that customer can react by conservation fairly soon after a rate increase. The Magruder-Proposed Consolidated Rates have significantly less "rate shock" than the Staff or Company's proposals.

d. Public Policy [5:20 to 6:9]. The Magruder-Proposed Consolidated Rates use water conservation as a driver as suggested by Mr. Abinah. Shifting from groundwater to surface water supply resources requires technical analysis and expenses that are beyond the scope of this case. The design of the Rate Structure should include low-income tariffs with very low "lifeline" rates used in the First Tier rates.

e. Other jurisdictions/municipalities [6:11-12]. The situation before this Commission involves an investor-owned utility with different goals than used by other jurisdictions including municipalities that also include local political objectives beyond the scope of this case.

Q. Do you agree with the Staff's Recommendations in the Abinah Testimony?

A. No. Mr. Abinah recommends for water districts

> "In this instance, **Staff recommends that the Commission maintain the status quo by adopting a stand alone design.**" [7:3-4, emphasis added]

Mr. Abinah then recommends for sewage water districts

> "In this instance **Staff recommends that the Commission maintain the status quo by adopting a stand alone design.**" [8:2-3, emphasis added]

This party does not concur with either of these recommendations for the rationale stated in Section 1 above, **Exhibit MM-1** and **Exhibit MM-2**. He then continues with, if consolidation is to occur, that it be accomplished on a regional basis [7:6-7] as presented in the Mr. Michlik Testimony.

Q. Do you agree with the Michlik Testimony?

A. In general, no. The Michlik Testimony states:

"Staff recommends approval of its stand-alone rate designs for the Anthem Water District, Sun City Water District, Anthem/Aqua Fria Wastewater District, Sun City Wastewater District, and Sun City West Wastewater District." [Summary]

And

"Staff recommends individual or stand-alone rates for all the Company's Districts, as denoted in Schedules JMM-1 and JMM-2." [3:14-16, emphasis added]

Response:

The Michlik Testimony then proposes, as required by Decision No. 71410, using the Company's model, several scenarios. The water Scenario One is for all water districts and water Scenarios Two and Three for selected groups of water districts. The wastewater Scenario One is for all wastewater districts while Scenario Two is for regional groups.

First, Table 13 below shows the high rate change impacts for each of the three water Scenarios. These are excessive and are not acceptable. These results from the Staff should be rejected as **not being fair and reasonable**.

Table 13 – Residential 5/8 and 3/4 inch Changes for the Commission Scenarios.

Water District	Average Usage				Median Usage			
	Monthly Usage (gallons)	Scenario (% bill change)			Monthly Usage (gallons)	Scenario (% bill change)		
		1	2	3		1	2	3
Sun City West	6,702	-21.85	-31.10	-31.10	6,000	-21.72	-31.61	-31.81
Agua Fria	7,679	-11.72	-5.31	+1.11	6,000	-10.72	-3.20	+4.32
Sun City	7,954	+68.23	+50.30	+50.30	7,000	+68.14	+48.74	+48.74
Bullhead City	8,070	+57.77	+68.87	+17.21	5,000	+54.87	+69.27	+18.85
Anthem	9,616	-14.34	-8.97	-3.60	8,000	-15.24	-9.24	-3.24
Havasu	9,786	-35.88	-31.91	-52.95	5,000	-40.08	-34.50	-54.01
Mohave	10,239	+60.05	+69.81	+16.80	7,000	+56.92	+68.99	+17.69
Tubac	11,740	-33.50	-29.49	-52.54	7,000	-38.68	-33.96	-54.01
Paradise Valley	24,954	+28.89	+36.38	+50.82	10,000	-13.04	-7.73	-2.42

Second, scattered throughout the Staff's testimony are various unique adjustments and such as for sprinklers and seasonal rate for lawn maintenance. All these adjustments, including arsenic recovery fees should be consolidated during this one-time rate consolidation event. For example, there is a Company proposed "Infrastructure Improvement Surcharge" for Sun City [9:1-15] that the Staff opposed. This should be absorbed into the Consolidated Rate along with ALL other infrastructure costs. Other Staff recommendations, such as elimination of the Anthem "Capacity Reservation Charges CRC-1" [6:12-14] are very appropriate during this one-time cleansing of rates for all these districts.

Third, the Staff recommended various sewage minimum fees for commercial toilets, dish washing machines, laundry machines, and wash racks, as shown in 2.4 under Consolidated Fees and Miscellaneous Charges. These should be the same for all sewage water districts.

Additional responses will in the Company's responses below.

3.2 Response to Company's Proposed Consolidated Rates.

Q. What did the Company propose in its Rebuttal to the Commission's Proposals?

A. The company filed Rebuttal Testimonies from Mr. Tomas Broderick and Ms. Constance Heppenstall on 7 April 2010, hereafter referred to as the Broderick and Heppenstall Testimonies.

Q. Did the Company agree with the Staff's Proposed Consolidated Rates?

A. In general terms, the Company did not find the Staff's Scenario One acceptable and proposed a Variation. Scenarios Two and Three were rejected by the Company.

Response:

This party concurs, in general, with the Company; however, the Magruder Consolidated Rate proposal goes significantly farther in reducing rate shock and increasing the conservation impacts of the design of the Rate Structure.

Q. How did the Company propose to reduce rate shock for the Sun City and Mohave water districts?

A. The Company's variation for Scenario 1, used transition period for several years to reduce rate shock with the Total Revenue remaining constant [Broderick Testimony 13:9-22].

Response:

This party concurs with both using a transition period and keeping the Total Revenue constant. These two features are embedded in the Magruder Proposed Rates; however, the calculations for a three-year transition period were not included because this party could not make that part of version 3 of the model to work. The data in Table 10 Assumptions were used for the first step, as shown in 2.2 above.

In the Magruder Proposal, rate shock was significantly reduced for all rate classes and categories by a shift of 3% of the residential rate burden to the Commercial Rate Class, as previously presented. This was used specifically for three objectives to:

(1) Provide very low "lifetime" rates for all customers, especially for those on low incomes,

(2) Reduce the rate consolidation impacts on Sun City and Mohave, and

(3) Provide incentives in terms of price signals to all customers to conserve water.

The adjustment of rates for each Tier and Tier widths were optimized to promote these three objectives. The only significant residential customer impact resulted in the Paradise Valley water district, which prior testimony in the First Rate Case acknowledges was trying to conserve water; however, that impact was significantly smaller than any proposed by the Staff or Company.

These higher rates will provide the price signals to continue that water district to conserve. The lowest rates provide a "lifeline" for all customers, especially the lowest income customers. Since these are applied for equally to all customers, then they are **reasonable** and **fair**.

Q. What is an issue where consolidation differences occurred between the Staff and Company?

A. The issue concerning consolidation of the residential 5/8 & 3/4-inch minimum charges with the 1-inch minimum charges. The Staff did not propose the consolidation of the Service Charge for these two rate categories. The Company is seriously concerned about the impacts of changing the water connections to the smaller fittings from a fire safety point of view so that customers can have lower monthly minimum charges. [Broderick Testimony, 1:23 to 14:9]

Response:

This party concurs with the Company's concerns; however, a different solution was used in the Magruder Rate *Consolidation proposals*.

The monthly 5/8 & 3/4-inch Service Charge was proposed at $15.00 and a 1-inch Service Charge at $25.50 because there are many other customers who have 1-inch connections. To reduce the impact of changing to a smaller water connection meter, a new "fee" of $150.00 was added as a standard fee for a customer requested meter connection change.

With a significantly smaller difference between the Fixed Charges for these two rate categories and a new "meter change fee", the financial incentive for customers to switch meters will be greatly reduced. The low Service Charge of $22.50, which is below what should be charged based on pipe sizes, and "meter change fee" are common for all residential and commercial rate categories in all water districts. This should greatly reduce this issue, and should be re-evaluated in the next rate case, as the 1-inch Service Charge was artificially reduced.

Q. Do you agree with the Company that other Sub-Groups of Districts are sensible?

A. This Party most definitely agrees that any sub-group would be counter to the benefits of consolidation. The statement by Mr. Broderick that "if the Commission determines that rate consolidation is appropriate, the only sensible and valuable long-term approach is state-wide consolidation with a transition percentage that mitigates the short-term increases" [Broderick Testimony, 15:5-7]

Q. Should Non-Potable Water Rates be consolidated?

A. As testified by Mr. Broderick, this provides a consistent framework for all districts and a proposed benchmark approach is recommended [Broderick Testimony, 15:8-21]. This party concurs with the ongoing approach used by the Company and its proposed discounts. The

Company's use of $2.50/1000 gallons for non-potable water [Broderick, 16:20] was used in the Magruder Consolidate Rates proposal.

Q. What is your opinion of the Anthem Water District study in the Broderick Testimony?

A. This is an outstanding study and very timely for the ongoing considerations. This is the kind of analysis that I have discussed earlier that will be necessary for Water Demand Side Management Reports, if approved by the Commission.

Response:

Even though this was a one-year study, when a series of similar cumulative reports are assessed, trends much firmer. The key conclusion from this report that the price signal from the new tier rate design reduced water consumption by 5% and that the Company needs to achieve its Total Revenue. This is a reduction in only the volumetric rate, not the total compensation received by the company; however, the concerns that in the last sentence of this report states

> "The implication of water conservation on revenue stability should be a matter of importance that should be addressed when matters of water conservation and rate design are addressed." [Anthem Report p. 12]

This statement needs to be a key issue, if the Magruder-proposed Water DSM and Water Loss Management Programs are adopted. The importance of "annual" checkups on the fair balance between revenue and conservation must be maintained and openly discussed, debated, and deliberated for fairness to the Company.

Q. Do you have any objections to the Company's Model?

A. No, the Heppenstall Testimony has an excellent description of this model. One area where it might have different result would be if the Total Revenue from the ongoing rate case had more than minimal changes between the Phase I hearings through approval by the Commission.

3.3 Response to Other Consolidated Rate Filings.

Q. Did any other parties provide Consolidate Rate Filings?

A. Mr. Hansen has filed such a Testimony. It is my opinion, that his concerns will be greatly reduced when he has reviewed my Testimony, herein.

3.4 Response to Customer Complaints and Support Comments.

Q. What is you opinion of the hundreds of complaints received by the Commission?

A. Many of these are common complaints whenever any rate increase is being discussed at the Commission. These complaints are one reason why the fixed and variable charges in rates were adjusted to reduce this one-time change to a minimum. When reading many "complaints"

based on the Magruder-proposed Rate Consolidations, as a package, many of these actually support the three key principles used in the design of the Rate Structure. In my opinion, these short-term issues will be forgotten as Arizona-American Water Company become more efficient.

Appendix A – Magruder Exhibits

Exhibit MM-1 – Excerpts from Marshall Magruder Reply Brief in the First Rate Case (docket 09-0227), Section 4

Exhibit MM-2 – Excerpts from Marshall Magruder Reply Brief in the First Rate Case (docket 09-0227), Section 2

Exhibit MM-1

Excerpt from the Marshall Magruder Reply Brief of 15 May 2009 in Commission Docket Nos. W/SW-010303A-09-0227, pages 19 to 41,

Section 4, "Rate Consolidation for All Water Districts"

NOTES CONCERNING THIS EXERPT:

1. It should be noted that this excerpt used revenue and rate data from the First Rate Case that has been modified for this case; therefore, please see the basic testimony for actual numerical values and consider those in this excerpt as representative examples of the important principles herein.
2. The pagination and footnotes were not changed to match the original.

Quote:

Section 4

Issue No. 3

RATE CONSOLIDATION FOR ALL WATER DISTRICTS

4.1 Summary of Issue No. 3

This party supports full rate and fee consolidations including having the Company, RUCO, and ACC Staff submit a single set of Consolidated Rate Schedules, Fees and Rules and Regulations, based on the rates being proposed by each as a later phase in the case for all five water districts and the next Arizona-American rate case all other water districts should be integrated within revised Consolidated Rates and Fees in order to have *fair and reasonable* rates throughout Arizona. (Magruder Brief, 24; 27-28)

In general, all RUCO, Staff and Company all support tiered rate structures and rate consolidation. There were no recommendations against consolidation; however, when and the level or degrees of consolidation are where differences lie. <u>These differences will be the ultimate decision on the Rate Consolidation issue, in my opinion, with the most significant impact on ratepayers than any other issue in this Rate Case</u>. (*Ibid*, 29, original underlined)

4.2 Replies to Post Hearing Closing Briefs.

4.2.1 Long-Term Benefits of Consolidation to Customers, the Company, and Shareholders.

<u>Company Brief</u>.

Mr. Townsley testimony stressed the "long-term benefits to customers of consolidation for ratemaking purposes between Arizona-American districts." (Company Brief, 6)

The Company conditionally supports Rate Consolidation because of "improved rate case efficiency, improving ability to make needed capital investments in smaller districts without imposing burdensome rate increases, improving ability to acquire small troubled water systems, and a desire to bring the tariff structure of water and wastewater utilities more in line with those of other regulated utilities in Arizona, that all support consolidation on a philosophical basis." (*Ibid,* 49)

Mr. Herbert is a witness for AAWC and providing his excellent background shows he is one witness with Company-experience in this matter, and supports consolidation of <u>all</u> financial and operational aspects for <u>all</u> water districts. (Magruder Brief, 31)

<u>RUCO Brief</u>.

A completed and comprehensive consolidation analysis was performed by RUCO for all districts in question other than Paradise Valley. (RUCO Brief, 15)

This analysis resulted in a consolidated Service Charge of $9.59. As usual, the greatest reductions occur for the highest service charge, with less significant increases for those with the lowest service charge which is fairer than the present situation. (Magruder Brief, 31)

In an overall view, using $9.59 provides more "rate relief" compared to rate "shock", which seems also to be fair and reasonable. Similarly, the proposed Company Service Charges to a Consolidated Service Charge has more "rate relief" occurs compared to rate "shock." (*Ibid*)

Staff Brief.

The Staff is "supportive of Rate Consolidation, where it is technically and financially feasible." (Staff Brief, 20)

The Staff did not perform a comprehensive consolidation rate analysis.

Magruder Reply.

This party fully agrees that all customers will definitely benefit with consolidation but for some their rates may increase; however, there are also numerous benefits to the Company as well as administrative costs, fewer tariff rates and associated filings, better company focus, equalization of existing disparities between water districts, lower rate case costs, so the Company can better focus on its customers' need and provide better service and lower overall costs. With reduced costs, shareholder benefits increase with higher dividends. (Magruder Brief, 25)

One-time costs for smaller districts would be absorbed in larger customer district with much less impact than the same one-time cost for a smaller district. There would be one rate case for these six water districts instead of six to thirteen cases now. Additional workloads for the Company, RUCO and ACC Staff would be avoided if only one rate case was being filed. (*Ibid*)

Due to fundamental differences between water and wastewater districts, it appears reasonable for the wastewater districts to be consolidated but separately from the others. (*Ibid*)

For an example of equalization of disparities between different water divisions, assume the following two water districts, using hypothetical numbers to show effects of consolidation is in Table 6. In this example, consolidating increased the Large District's rate by $0.48 and reduced the Tubac District rate by $19.52. Now, is consolidating "fair and reasonable" or not? In this Party's opinion, it is fair and reasonable. In addition to "cost of service" example, the same impacts would apply for the water volume rates. (*Ibid*, 26-27; Table 8, 28)

Table 6. Example of Consolidation Impacts for a Large and a Small District.

Factor	Tubac District (a)		Large District (b)
1. Number of customers	500		20,000
2. Service Charge	$40.00		$20.00
3. Monthly Revenue (fixed) (1 x 2)	$20,000		$400,000
		Consolidated	
4. Number of Customers (1a + 1b)		20,500	
5. Service Charge (3a + 3b)/(1a + 1b)		$20.48	
6. Monthly Revenue (fixed) (4 x 5)		$420,000	

In the recent UNS Electric rate case, the Mohave and Santa Cruz County residential and small commercial rates were finally consolidated after five decades. The smaller Santa Cruz County saw an 8% reduction in small business rates while Mohave County rates increased about 2% based just on consolidating rates in each rate category. (*Ibid*)

4.2.2 Specific Impacts on Service Charges due to Consolidation.

Company Brief.

Mr. Townsley testimony stressed there are "long-term benefits to customers of

consolidation for ratemaking purposes between Arizona-American districts." (Company Brief, 6)

The Company consolidation analysis used Proposed rates, and several different water districts, including some that are not included in this rate case. Still, this gives a picture of relationships using proposed rates. (Magruder Brief, 34)

The Company's determined consolidated service charge was $15.59 for the proposed rates. We see significant decreases for Tubac, Paradise Valley and Havasu, and minor increases for Agua Fria and Sun City West and Mohave Water in Table 7. (*Ibid,* and Table 11, 33)

Table 7. Changes due to Consolidation on Proposed Service Charges.

Water District	Change	Difference in Present Rates	Calculation (Consolidated minus Present)
Mohave	Increase	$ + 3.59	(15.59-12.00 = +3.59)
Sun City West	Increase	$ + 0.59	(15.59-15.00 = +0.59)
Agua Fria	Increase	$ + 0.59	(15.59-15.00 = +0.59}
Havasu	Decrease	$ - 12.41	(15.59-28.00 = -12.41)
Paradise Valley	Decrease	$ - 12.41	(15.59-28.00 = -12.41)
Tubac	Decrease	$ - 16.91	(15.59-32.50 = -16.91)

RUCO Brief.

A completed and comprehensive consolidation analysis was performed by RUCO for all the districts in question. (RUCO Brief, 15, Magruder Brief, 32-36)

The RUCO analysis resulted in a consolidated Service Charge of $9.59 for five districts. Table 8 shows in the inequity in service charges that now exist because the service charge cost are not consolidated, with unfair discrimination on customers who receive the same product. As usual, the greatest reductions occur for the highest service charge, with less significant increases for those with the lowest service charge. (Magruder Brief, 31 and Table 10, 33)

Table 8. Changes due to Consolidation on the Existing Service Charges.

Water District	Change	Difference in Present Rates	Calculation (Consolidated minus Present)
Sun City West	Increase	$ + 3.72	(9.59 - 5.87 = +3.72)
Mohave	Increase	$ + 0.84	(9.59 - 8.75 = +0.84)
Agua Fria	Increase	$ + 0.51	(9.59 - 9.08 = +0.51)
Paradise Valley	Increase	$ + 0.07	(9.59 - 9.65 = +0.07)
Havasu	Decrease	$ - 2.19	(9.59 - 11.87 = -2.19)
Tubac	Decrease	$ - 10.09	(9.59 - 19.68 = -10.09)

When comparing Present to the Consolidated Service Charge, one sees the present $9.59 or proposed $15.59, consolidation provides more rate "relief" compared to rate "shock". This is fair and reasonable. Similarly, comparison of the proposed Company to a Consolidated Service Charge, again, more rate "relief" occurs compared to rate "shock." (*Ibid,* 32)

Staff Brief.

The Staff did not calculate a comprehensive Service Charge.

Magruder Reply.

When using the Proposed Consolidate Service Charge, the change for those with lowest rates is much less significant than for those with the highest proposed service charges.

Table 9 shows Basic Service Charges with the present rates and proposed RUCO, Staff and Company proposed rates. These vary from $5.87 to $ 32.50. (*Ibid,* 32 and Table 9)

Mr. Hebert (Arizona-American witness) stated the highest rates see the greater decreases and the lowest rates, the smaller increases when consolidating is borne out here. (*Ibid,* 31)

Table 9. Consolidated and Unconsolidated Basic Service Charges
(Residential 5/8 and 3/4-inch Meters)

Consolidated Service Charge (RUCO)	AAWC Present Basic Service Charge					
	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water	Paradise Valley[4]
	$ 9.08	**$ 5.87**	**$ 19.68**	**$ 11.78**	**$ 8.75**	**$ 9.65**
$ 9.59	**RUCO Proposed Basic Service Charge**					
	$ 11.87	**$ 13.81**	**$ 29.34**	**$ 25.66**	**$ 10.30**	**$ 26.68**

Consolidated Service Charge (AAWC)	AAWC Proposed Basic Service Charge					
	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water	Paradise Valley
$ 15.59	**$ 15.00**	**$ 15.00**	**$ 32.50**	**$ 28.00**	**$ 12.00**	**$28.00**

Consolidated Service Charge (ACC Staff)	ACC Staff Proposed Basic Service Charge					
	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water	Paradise Valley
Not calculated	**$ 14.55**	**$ 15.30**	**$ 28.73**	**$ 24.54**	**$ 9.10**	**$ 28.00**

4.2.3 Specific Impacts on Consumption Rate Charges due to Consolidation.

Company and RUCO Briefs.

The Company and RUCO did not offer any consolidated consumption rates in its Brief for the Final Schedules but did in earlier testimonies.

Staff Brief.

The Staff did not calculate consolidated consumption charges.

Magruder Reply.

RUCO's Mr. Moore consolidated the commodity (volumetric) usage charges by determining a common three-tier rates for residential customers (5/8 & 3/4-inch) and two-tiers for all other customer categories. Table 10 compares this residential rate category. (Magruder Brief, 33; Table 12, 34)

Table 10. Consolidated and Unconsolidated Existing Commodity Charges.
(Residential 5/8 and 3/4-inch meters)

Commodity Usage (at $/1000 gallons)	AAWC Present Rate Design					
	RUCO Consolidated Rate	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water
First 4,000 gals	**$1.2443**	$1.5398	$1.3092	$1.89	$1.6802	$0.85
Next 10,000 gals.	**$2.0757**	$2.2198	$1.7442	$2.85	$2.1852	$1.30
Over 14,000 gals.	**$2.3270**	$2.6468	$2.0102	$3.41	$2.5000	$1.50

Again, *the water division with the highest rates received the greatest decrease when consolidated, and the water division with the lowest rates the highest rate increases.* (*Ibid,* 34)

The Company also computed a consolidation scenario, with different assumptions when compared to RUCO's analysis. The Company's analysis used Proposed rate, and different water districts, including some not included in this rate case. Still, this gives a picture of relationships using the Company's proposed rates. (*Ibid*)

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[4] Final Schedules for the Company, ACC Staff, RUCO and Magruder combined the present Paradise Valley 5/8 and 3/4-inch rate categories into one, which is simulated by averaging herein.

Table 11 shows consolidated commodity rates compared to the proposed Company's rates; however, without considering the Final Schedules. Again, the *water districts with the highest commodity rates, received the greatest rate reductions, while those with the lowest rates, the smallest rate increases.* (*Ibid*)

It is not feasible to directly compare these "consolidation" analyses. Mr. Moore comprehensive consolidation used present rates, excluded Paradise Valley, and derived common three-tier commodity blocks, to equalize Company return with the Test Year. (*Ibid*, 35)

Table 11. Consolidated and Unconsolidated Proposed Commodity Charges.
(Residential 5/8 and 3/4-inch meters)

Company's Proposed Rate Design							
Commodity Usage Blocks (at $/1000 gallons)	**Company's Consolidated Rates**	Agua Fria	Sun City West	Tubac	Havasu Water	Mohave Water	Paradise Valley
First 4,000	**$1.500**	$2.926	$2.880	$3.780	$4.033	$1.471	$1.288
4,001-10,000		$3.463				$1.625	
4,001-13,000	**$3.463**				$4.196		
4,001-15,000			$3.171				
4,001-20,000				$4.850			$2.233
Over 10,001						$1.744	
Over 13,001	**$3.670**				$4.555		
Over 14,001							
Over 15,001			$3.413				
Over 20,001				$4.950			
20,001-65,000							$2.796
65,001-125,000							$3.359
Over 125,001							$3.879

The Company's "typical" Consolidated Bills for residential customers are in Table 12 for the Company's proposed rates, different water companies, and other assumptions that make this analysis not suitable to make any decisions in this rate case because it is incomplete and needs correction to reflect the current proposed rates. (*Ibid*; Tables 13 and 14, 35)

Table 12. Consolidated Proposed Impacts for Typical Residential Bills and Total Revenue.

Water District	Typical Bill	Proposed Changes WITHOUT Consolidated Rates	Total Revenue
Tubac	$41.01	+47.13% rate INCREASE	$0.3 million
Havasu	$35.85	+42.90% rate INCREASE	$0.6 million
Mohave	$31.77	+37.22% rate INCREASE	$1.7 million
Agua Fria	$30.09	+17.75% rate INCREASE	$3.5 million
Paradise Valley	$66.94	+2.95% rate INCREASE	$0.3 million
Sun City West	$28.35	-15.69% rate DECREASE	$1.3 million
Water Districts in the Company's Analysis that are ***NOT*** in this rate case.			
Sun City	$32.26	+136.00% rate INCREASE	$8.4 million
Anthem	$34.15	+47.74% rate INCREASE	$44.6 million

The variety of "blocks" in Table 11 show how dysfunctional the existing rate and proposed rate schedules are for this Company. There should be only one block structure for all water districts. (*Ibid,* 36)

First, there is no logic when setting the limits for the rate blocks. The distribution of the water usage is a non-Gaussian (or normal) and more like a chi-squared (X^2) distribution, with a fast rising peak closer to zero and a long tail. A chi-squared distribution has its mean or cumulative 50% distribution nearer to the origin, thus when an average customer consumes between 7,500 to 12,000 gallons. The rate structure must have cost "signals" for those near-mean usage customers. (*Ibid*)

Second, second tiers start at 3,001 or 4,001 gallons to 10,000, 13,000, 15,000, and 20,000 gallons. The range for this "second" tier extends from 3,000 to 14,000 gallons, too wide and challenging for a consumer to see the price signal to reach (or reduce demand) the first tier. The chi-squared tail extends for tens to hundreds of thousands gallons with price tiers only in the Paradise Valley after 20,001 gallons, with the last starting at 125,000 gallons. (*Ibid*)

Third, the Company's Consolidated Rate second tier is 9,000 gallons wide. It may be divided to make obvious and reachable blocks for customers to lower water bills by conservation. (*Ibid*)

Fourth, looking at Table 11, one sees 13 different tiers used by six water divisions for the same rate category. I proposed a standard 4,000-gallon blocks in the residential and small commercial rate categories. (*Ibid*)

Furthermore, all larger residential and commercial commodity rate categories have just two tiers. Many small commercial (5/8 and 3/4-inch), such as in the Tubac district, have very similar demand demands (with a lower average) than the residential counterparts. These commercial categories should parallel the residential rate tiers. Multiple tier blocks for all other rate categories should be in the resultant tariff from this rate case. Just like the residential category that is discussed extensively, commercial enterprises can and will always look for ways to lower rates, IF THEY CAN, to a lower tier. As the present and proposed rate structure is now constructed with only two tiers, reaching the first tier rates is nearly impossible unless your consumption is just over the second tier break point. This is *utterly useless*. (*Ibid*)

At least five tiers for larger meters is recommended, with two breakpoints below the chi-squared mean for example near the 35% and 45% points, the third at 5% past the mean (55%), and fourth and fifth, near the 65% and 80% points on the tail. The additional breakpoints on the tail will provide significantly more revenue to the Company in Exhibit M-4. (*Ibid*)

4.2.4 Consolidation of Miscellaneous Charges and Fees.

Company, RUCO, and Staff Briefs.

The Company, RUCO and Staff Brief did not discuss miscellaneous charges and fees in their Briefs; however, the Final Schedules presented various charges and fees for the different water districts. Consolidation of these fees and charges was not discussed.

None of these charges and fees appears isolated by water district; however, the Company is using different rates/fees for the same service at different water districts. If nothing else happens in this rate case concerning consolidation, this is the easiest consolidation step. (*Ibid, 37*)

Magruder Reply.

No standards are used for miscellaneous charges and rates, with significant differences between charges for the same service in different water districts. (Magruder Brief, 19)

Miscellaneous customer costs that should be included and consolidated in this rate case are in Table 13. (*Ibid* and Table 6, 19-20)

It is probable that new water lines will be lengthy in rural areas. This party objects to having existing customers funding ANY such developer's expenses. New customers must fund new development, and not today's ratepayers, for the actual cost or line extensions and meters. Service Line and Meter Installation Charges must also be borne by new customers. (*Ibid*)

Meter Test and Re-reading Meter (when correct) need to account for higher vehicle fuel costs, thus these were increased. Also increased were the cost for a check without specific

funds (NSF) to $30.00, a more commonly used fee. The Late Fee charge is raised to a simple 3.0% per month (36.0% APR), the maximum permissible interest rate. The Deferred Payment Financing fee at 1.5% per month (18.0% APR) is half of the Late Fee charge. To obtain deferred financing the ratepayer has committed to makeup unpaid bills to the Company and a lower Deferred Payment Financing fee is fair and reasonable. This could help the Company collect its fees and charges by discouraging higher costs for non-payment. (*Ibid*, 20; Table 6, 19-20)

Table 13. Present, Proposed, and a Standard for Miscellaneous Charges and Fees.

Miscellaneous Customer Cost	Company's		**Magruder Proposed Charge**	Variations in other water districts' charges and fees (present and proposed) including Staff and RUCO
	Present Charge	Proposed Charge		
Establish, Re-establish, Re-connect Fee (Regular hours) (Off hours)	$ 30.00 $ 40.00	$ 30.00 $ 40.00	**$ 30.00** **$ 60.00**	$ 20 to $4 0 $ 20 to $ 60
Water Meter Test (if correct)	$ 10.00	$ 10.00	**$ 80.00**	$10 to $81
Meter Re-read (if correct)	$ 5.00	$ 5.00	**$ 20.00**	$ 5 to $25
Move Customer Meter	NA	NA	**Actual Cost**	NA or Actual Cost
Non-Sufficient Funds Check Charge	$ 10.00	$ 10.00	**$ 30.00**	$10 to $25
Late Fee Charge	1.5%/ month	1.5%/ month	**3.0% /month**	NA to 1.5%/ month
Deferred Payment Finance Fee	NA	NA	**1.5% /month**	NA to 1.5% /month
Residential Deposit	2 x average bill			2 x average bill
Non-Residential Deposit	2.5 x average bill			2.5 x average bill
Deposit Required (residential or commercial), Interest on Deposit	In accordance with ACC Rule 14-2-403(B)			
Service Line Charge (Difference based on size of line)	$130 to $6,120	$156 to $830, Actual	**Actual Cost**	$370 to $1,620 to actual cost
Meter Installation Charge (Difference based on size of line)	$370 to $1,630	$370 to $1,890, Actual	**Actual Cost**	$130 to $6,130 to actual costs (plus $120 for AMR)

Specific areas that should be consolidated include:

1. General & Administrative (believed to have been completed)
2. Cost of Service and Volumetric Charges with more and standard tiers deployed
3. Arsenic treatment costs (service and volumetric) included in 2 above
4. Taxes, including social security and Medicare, and other Rate Base Costs
5. Service Line and Meter Installation Charge (change all to "actual cost")
6. Establish, Re-establish, and Re-connect fees during regular and off hours
7. Water Meter Test, (if correct) and Re-read the Meter (that is good)
8. Non-Sufficient Funds to check charges and Late fees, Deferred Payment Finance Charge, Residential and Non-Residential Deposit Interest on Deposits (*Ibid, 37)*

4.2.5 Consolidation of Rules and Regulations.

Company, RUCO and Staff Briefs.

There were no comments on Rules and Regulations in any of these Briefs.

Magruder Reply.

The Company's Rules and Regulations (R&Rs), submitted, as a part of this rate case, should be consolidated. In respond to a Magruder Data Request, these R&Rs have not been

translated into Spanish. (Magruder Brief, 28)

4.2.6 Impact of White Tanks Plant on Consolidation.

Company Brief.

The Company's Brief argues that its White Tanks Plant proposal is "fair" and "will mitigate rate shock and enable Rate Consolidation in the near future." (Company Brief at 19)

The Company continues that if its White Tanks Plant proposal were not approved, it would have to file another rate case to put "the entire White Tanks Plant in rate base." (Company Brief at 19)

The Company also uses the ACC Staff testimony by Mr. Becker who, under usual conditions, would support such a request in the next Agua Fria district rate case. (Company Brief at 19)

The Company concludes that this alternative would result in a "significant future rate increase for Agua Fria customers" and "throw off the consolidation timeline" (see below) (Company at 20)

RUCO Brief.

In summary, RUCO recommends the "Commission should reject the Company's proposal... associated with the White Tank plant in rate base." (RUCO Brief at 4)

Staff Brief.

"The Commission should reject the Company's request to include CWIP in rate base in this case and any associated related adjustments to increase depreciation and property taxes related to inclusion of CWIP in rate base should also be rejected." (Staff Brief at 7)

Magruder Reply.

It issue exists because the rates are NOT consolidated and as a result will be unfair, no matter how determined without consolidation, to the ratepayers in Agua Fria water district. This case can be described as a global "rate shock" due to the extraordinary rate increases proposed by all but this party. (Magruder Brief, 41)

The issue of "when" to include this project should be in accordance with normal rate case procedures with consolidated rates. Since we have multiple and different sized water districts, any capital expense perturbation is unfair to the smaller division, as shown in Table 8. (*Ibid*, 26; Table 8, 29)

This party agrees with the Company on this issue this is unfair to the Agua Fria ratepayers. Only after it is operational should this plant's cost go into a Consolidated rate base in order to be fair to all customers, shareholders, and the Company when the other Arizona-American water districts are integrated into Consolidated Rates and Fees. The prudently assessed impacts of the White Tanks, like all capital projects, must be spread across all ratepayers in a Consolidated Rate base, as just to those in Agua Fria water district is unfair and not reasonable.

4.2.7 Was adequate notice provided in this case to proceed with Consolidation?

Company and RUCO Briefs.

This issue was not addressed.

Staff Brief.

Staff was concerned that notice in the instant case was not adequate to notify affected ratepayers, particularly those customers of the districts that were not included, that a rate increase (or decrease) was possible. (Staff Brief, 20)

Magruder Reply.

The Staff witness states "proper notice be given to customers affected by a rate application" in accordance with Arizona Administrative Code R14-2-105(A) and that this notice has not been given to "all the Company's customers". Staff recommends, "Rate Consolidation

can not be undertaken in this docket." Further, he states "due process concerns require proper notice be given." (Magruder Brief, 37)

This Rate Case Procedural Order required Notice of these hearing for this case be placed in newspapers and in billing statement for all customers involved in this rate case. This includes customers of all six water districts and one wastewater district that are impacted by this case and excludes other Arizona-American two water districts and four wastewater district customers not impacted by this case. Consolidation for the one-wastewater district has not been considered. Therefore, only the six water districts are being considered for consolidation and all their customers were properly "noticed" in accordance with the ACC Regulations. The Company also has reported compliance with the Rate Case Procedural Order. (*Ibid*)

This notice included: "The Commission is not bound by the proposals made by Arizona-American, Staff, or any intervenors; therefore, the final rates approved by the Commission may be higher or lower than the rates requested by Arizona-American." (*Ibid*, 38-39)

It appears obvious the Commission may make any changes it deems appropriate and legal as the final result of any and all rate cases. In my opinion, there is absolutely nothing is this notice that would "prohibit" consolidation of these six water districts in THIS rate case. Further, A.A.C. regulations R14-2-105(A) have been met. Therefore, there is no reason why consolidation cannot be implemented based on Notice for these six water companies, without additional "Notice". (*Ibid*, 39)

In this party's opinion, rate consolidation of the six water districts in this case is within the Notice requirements of the A.A.C. and other statutes. All other Company water districts have never been a consideration by this party.

4.2.8 All Urge Consolidation to Proceed with Caution.

Company Brief.

Mr. Townsley supports consolidation "as long at consolidation does not cause further financial harm to the Company." (Company Brief, 6)

He also has some concerns with rate consolidation. The practicalities of district consolidation present significant challenges to both the Commission and Arizona-American. For instance, average customer water bills across Arizona-American's systems range from about $12 per month in Sun City to about $70 in Paradise Valley." Some of these "differences are due to net-plant investment and O&M expense per customer between districts. Proposals for the short term are likely to cause significant public and political consternation. Arizona-American will not support consolidation if the result were to delay rate relief, or otherwise harm the Company." (*Ibid,* 49-50)

RUCO Brief.

RUCO "believes the batter approach would be to consider the [consolidation] issue when all of the districts are the subject of a rate case. This would provide the Commission with the opportunity to consider all the factors necessary to make the best decision. These factors include, but are not limited to, the operational and financial information of all the Districts, the interconnectivity of the systems, and the financial impact on each system. It would also mitigate some of the unintended consequences that will result should the Commission make the decision at this time." (RUCO Brief at 15-16)

Staff Brief.

The Staff feels rate consolidation is a complex issue that has both public and policy ramifications and recommends that before undertaking rate consolidation, the Commission establish certain criteria regarding public health and safety, proximity, economics of scale and rate shock. (Staff Brief, 20)

For Arizona-American, with differing rates among its districts, rates for some customers will decrease while rates for others will increase for others. (*Ibid*)

Before undertaking consolidation, the Company would have to undertake significant public outreach to educate its customers on the issue, something that did not happen within the confines of the instant case. (*Ibid*)

Staff recommends that the Commission carefully consider all aspects and impacts that could result from consolidation in an effort to avoid unintended consequences. (*Ibid*)

Staff testimony addressed areas where work remains before rate consolidation, including:

1. How to deal with different number of, and break point for, rate tiers across the districts.
2. How to account for differing uses of water for irrigation in different districts, particularly in the Paradise Valley Water District.
3. Whether to consolidate commercial rates at the same time.
4. Whether returns on customer classes as a result of cost of service studies are or should be the same in the different districts.
5. How to maximize public input, including whether to hold workshops.
6. How to educate the public about the pros and cons of rate consolidation.
7. How Staff, RUCO, and other parties would participate in the public process.
8. Whether to flash cut to consolidated rates or to phase them in.
9. Whether to consolidate sewer rates at the same time that water rates are consolidated.
10. What economics of scale would result from consolidation? (Company Brief, 50)

These criteria are sound and should be evaluated during a consolidation application review. (*Ibid,* 40)

Magruder Reply.

This party agrees but some of these concerns have been overtaken by events. Going through all of these from Company, RUCO to Staff, we see the following:

a. Financial harm. First, rate structure variations are all revenue neutral. Rate consolidation should not impact revenue and do financial harm.
b. Average water bill differences. These differences are mild when compared to the variations in rates being proposed in this case, see Table 1 at 10, Table 2 at 11, Tables 3 and 4 at 13, Table 5 at 16, Table 7 at 21, Tables 8 and 9 at 22, Table 10 at 23, Tables 11 and 12 at 24, and Table 13 at 26 that show much more significant variations without any rationale in this case.
c. Net plant investment differences. These are due to many factors, but as indicated by Mr. Herbert, consolidation is the only solution to smooth out high swings in rates. "The cost of specific programs should be shared by all customers rather than burdening those of the affected area. Rate increases will be more stable and major increases in specific tariff groups will be avoided. "(Magruder Brief, 29)
d. O&M expense differences. These are due to many factors, but as indicated by Mr. Herbert, consolidation is the only solution to smooth out high swings in rates. (Magruder Brief, 29)
e. Public and political consternation. This company presently has a terrible reputation by its customers; mostly because of the extremely high rate changes requested in its rate cases. Personally, I doubt if it could be worse, so concerns about "consternation" are understandable but in reality mute. Therefore, since consolidation will "smooth out" and "equalize" the bothersome peaks and valleys ratepayers now perceive, there could be no better time than the present to consolidate from this view point. (*Ibid*, 40)
f. Rate relief timing. This company perceives that "any" delay in obtaining the increased rates requested in this case will have terrible consequences involving reduced spending on capital projects, personnel reductions, and equipment maintenance due to losing parent company and shareholder support. This case has taken over a year so far with new rates not expected prior to September 2009. In my opinion, a few additional months to really settle the unjust and unfair rates now being implemented are worth the longer-term benefits for shareholders, customers, company integrated work, and regulatory agencies.

g. Consolidate when all of the districts are the subjects of a rate case. At present, 5 of 7 water districts are represented, required Company revenues and test year expenses adjudicated, and necessary financial basis determined, a requirement prior to determine how to collect this revenue. Rate consolidation is revenue neutral. To expend hundreds of thousands of dollars in a future rate case, manpower that has been used in this case, and the necessary audits at some future date, is not cost-effective and delays are benefits of consolidation. There is no need to have all 7 water districts in the same rate case to consolidate these 5 districts. The proposed result will be one large water district (of the 5 herein) that will consolidate with the remaining two later. Three entities will be in the second rate case, not 7, again with consolidation benefits already incorporated for the original 5 districts. Thus, the addition of two smaller districts, as shown time and time again in my analyses, to the larger district will result in less impacts on the larger district and greater on the smaller ones, as they converge into one integrated water company. The cost of 7 rate cases is greater than to consolidate 3 rate cases.

h. All districts in one case provide an opportunity to consider all the factors necessary to make the best decision. By having a two-step consolidation approach, as just explained above, does not mean nor imply "all" operational and financial factors are considered but over two cases (this one and one for the remaining districts), not in one larger future and much more expensive rate case.

i. Consideration of interconnectivity of systems is necessary for consolidation. This involves expenses of connecting to different water districts but is not an essential element of rate consolidation. Both the Company's Mr. Hebert and Staff agree that interconnectivity is NOT required for consolidation, but is a nice to have feature, if possible. (Magruder Brief, 31 and 39)

j. Unintended consequences of consolidation. First, all decisions may have such consequences; however, the Staff has listed at least 10 such considerations that are discussed below. (Company Brief at 50)

k. Commission establishes certain criteria regarding public health and safety, proximity, and economics of scale and rate shock. Pubic health and safety criteria will not change with consolidation. Proximity, as indicated in "I" above, is not a factor in consolidating. Economics of scale is a benefit for many parties, should be a positive outcome; however, having the Commission pre-determine this as a "criteria" for consolidation will not be known until after the consolidation plan is finished. Rate shock occurred long ago, and then the Company submitted its original and revised applications. Any customer, who has a proposed rate increase of over 15%, will have rate shock, at least 80% of the customers in these five districts. Only through rate consolidation will "rate shock" be diminished.

l. Some customers will have rate increases and others decrease with consolidation. As shown, the degree of change is related to the customer base size. Larger divisions will have smaller changes, smaller divisions larger changes, with the resultant changes more beneficial for the smaller divisions as rates become smoother for all.

m. Company needs to take significant public outreach prior to consolidation. The public is presently furious and ill informed about utility rates, not only water, but communications, electric, and gas rate structures. The terms used for each are all different and very confusing as additional "mechanisms" and surcharges only add confusion. Very few understand the fundamentals of the process and rate determination mechanisms used by the Commission, as this is my fifth rate case, in a continuum of learning, I'm in the fifth grade with graduation a long time away. Extensive public outreach has problems in that some small factor maybe blown out of proportion. For example, the Magruder proposed rates will decrease the majority of these on Sun City West who are the loudest objectors to consolidation and rate tiers I have

proposed. Even after explaining, during breaks in this case, understanding that the resultant is lower rates is not understood. Facts need to be published in billing statements that are clear, understandable showing impacts. Educating the public to accept change is challenging and may never be effective.

n. Number of breakpoints and tiers (1). This issue is the heart of consolidation. Many tiers are necessary due to varying demands. Price signals are required. Consumption levels in each district are drivers. As accomplished by RUCO, this can be developed in a fair and reasonable manner.

o. Irrigation water differences (2). Arizona-American is a water company, not an agriculture irrigation district, and as such, is required to deliver safe, potable water. Irrigation water should not be a separate rate category unless used for agriculture, but integrated in the residential/commercial rate categories. The same goes for "fire" water.

p. Consolidate residential and commercial at the same time (3). This party feels that the company's revenue requires both to be consolidated at the same time. In fact, there many are some trades between these two rate classes when consolidating rates.

q. Cost of Service at water district or consolidated level (4). As strongly advocated by the Company's rate structure witness, Mr. Herbert, cost of service must be integrated across the entire customer base, not for each small, individual entity, in order to be fair and reasonable. (Magruder Brief, 31)

r. Maximize public input and decide to hold workshops (5). This is a Company decision but will add to rate case costs. See "m" above.

s. Educate the public about the pros and cons of rate consolidation (6). In my opinion, only as small number of the public will understand this, as stated in "m" above.

t. Participation of Staff, RUCO and other parties in the pubic process (7). Unless prohibited by statue, all knowledgeable-parties should participate.

u. Flash-cut or phase in consolidated rates (8). As is clear in Mr. Herbert's writing, without consolidation, rates are NOT FAIR. Fairness requires remediation of unfair, unconsolidated rates. The multi-phase approach took 50-years for a recent electric rate consolidate, with a half-century of unfair rates.

v. Consolidate sewage and water together or separately (9). As these are different businesses, separate consolidation cases are appropriate.

w. Economics of Scale due to Consolidation (10). See "k" above.

4.2.9 When and How to Consolidate.

Company Brief.

Because of the complexities and potential for unintended consequences, the Company's position is that rate consolidation must be analyzed though a proceeding focusing solely on consolidation issues. (Company Brief, 51)

The Company intends to do the following in a separate and nearly parallel process with its Next Rate Case:

1. Open a separate Rate Consolidation Docket including all of its districts focusing solely on rate consolidation.
2. Request the Commission to re-open this Rate Case and the Next Rate Case under A.R.S §40-252, solely for the purpose of re-examining the rate design consistent with resolution of the Rate Consolidation Docket.
3. If a new rate design were ordered as part of the Rate Case Docket, the A.R.S. §40-252 procedure would allow the final order in this 2008 Rate Case and the final order in the Next Rate Case to be amended solely to adjust rate design.
4. The Commission must rely on the summation of the individual districts' revenue requirements found in the 2008 Rate Case Order and in the Next Rate Case Decision as a basis for new rate design consolidating rates in some or all districts.

5. This procedure would allow the Commission to fully examine Rate Consolidation as a basis for a new rate design consolidating rates in some or all districts.
6. This procedure would allow the Commission to fully examine Rate Consolidation while at the same time allow the Company to implement new rates in each of its divisions on an unconsolidated basis, necessary in the interim to ensure the Company's continued financial health and stability.
7. The Company is willing to support the above actions as best as possible in a manner consistent with completion of the Next Rate Case and Rate Consolidation by December 2010. However, the Company can only control the timing of initial application filings; it has only limited influence on subsequent procedural dates. (Company Brief, 51)

RUCO Brief.

In this case, the Commission is considering only 7 of the 13 water and wastewater districts. From RUCO's perspective, this does not make sense to consider only 7 districts at this time. RUCO believes the better approach would be to consider the issue when all districts are the subjects of a rate case to provide the Commission the opportunity to consider all the factors necessary to make the best decision. (RUCO Brief, 15-16)

Staff Brief.

The Staff recommendation in Mr. Abinah's testimony is that

"The Commission order Arizona-American, in its next rate case, to propose detailed rate consolidation and/or system interconnection plans where the Company believes it is technically and financially feasible." (Magruder Brief, 40)

Staff defines "rate consolidation", also known as Single Tariff Prices (STP) as

"The use of a unified rate structure for multiple utility systems that are owned and operated by a single utility, but that may not be contiguous or physically interconnected." (*Ibid*)

Similar to the Company's Mr. Herbert, we see Mr. Abinah support consolidation even if the water districts are not contiguous or interconnected. In fact, Staff feels that rate consolidation or STP even when not physically interconnected. (*Ibid*)

During Mr. Abinah's oral testimony he suggested that a 12 to 18 month plan be developed leading toward consolidation in one rate case for all districts. Under cross-examination, it appears this is a bit optimistic as this party urged not to spend 50 years consolidate his electric company. He is and rightfully concerned about unintended consequences including analysis of these factors during a consolidation application review, to include as minimum criteria:

a. Public health and safety.
b. Proximity and location.
c. Community of interest.
d. Economies of scale/rate case expense.
e. Price shock and mitigation including a low-income program
f. Public policy.
g. Other jurisdictions and municipalities. (Magruder Brief, 39-40)

[These factors were discussed above]

Magruder Reply.

In general, this party supports the Company's position in its Brief.

Specific areas that should be consolidated include:

1. General & Administrative (completed)
2. Cost of Service and Volumetric Charges so that more tiers be deployed
3. Arsenic treatment costs
4. Taxes, including social security and Medicare
5. Service Line and Meter Installation Charges (change all to "actual cost")
6. Establish, Re-establish, and re-connect fees during regular and off hours

7. Water Meter Test (if correct) and Re-read the Meter (that is good)
8. Miscellaneous Charges and Fees including Non-Sufficient Funds to check charges and Late fees, Deferred Payment Finance Charge, Residential and Non-Residential Deposit Interest on Deposits. (Magruder Brief, 37)

In addition, the Company's Rules and Regulations (R&Rs), submitted as part of this rate case, should be consolidated into one document, and also made available in Spanish. (*Ibid*)

The published works by the Company's witness, Mr. Paul Herbert, should be used as a foundation for consolidation. (*Ibid,* ¶4.2.3.1, 29-31)

This is not a single or a selected group of water districts issue. All water districts should be consolidated into a single tariff for all water districts and one single tariff for all sewage water districts throughout the entire Company. (*Ibid,* 29)

In general, all RUCO, Staff and Company testimonies all support tiered rate structures and rate consolidation. There were no recommendations against consolidation; however, when and the level or degrees of consolidation are where differences lie. (*Ibid*)

First, Mr. Herbert uses "rate equalization" instead of "consolidation" defined as follows:

> "Rate equalization or single tariff pricing is the use of the same rates for the same service rendered by a water company regardless of the customer's location." (*Ibid*)

Second, Mr. Herbert made very clear the basis for his definition of "rate equalization" (consolidation) as follows:

> "Rate equalization is based on the long-term rate stability which results from a single tariff, the operating characteristics of the tariff's groups, the equivalence of services offered, the cost of service on a tariff group basis, and the principle of gradualism." (*Ibid*)

Third, Mr. Herbert explained how rate equalization provided long-term stability for several areas, that also defines the situation here including the arsenic and White Tanks issues in Arizona, as follows:

> "Utility customer rates are dependent on the total expenses and rate base of the utility and the amount of the commodity which the utility sells. Changes in rate base, particularly, as the result of the Safe Drinking Water Act, have significant potential for adversely impacting the rates for certain areas within a utility.
>
> "The ability to absorb the cost of such projects over a larger customer base is a compelling argument in support of rate equalization. Capital programs will never be uniform in the several operating areas, even over periods of 5 to 10 years. <u>The cost of specific programs should be shared by all customers rather than burdening those of the affected areas. Rate increases will be more stable and major increases in specific tariff groups will be avoided</u>."[5] [Underlined for emphasis] (*Ibid*)

The impacts that Mr. Herbert's approach would have on this case include:

- Consolidate all capital and other costs into one account, shared equally using one set of rate categories for all customers.
- This would "equalize" or level out, the ups/downs in all Arizona-American water districts.
- This reduces the rate complexity in these six very divergent, non-coordinated, and discombobulated rate cases to one rate base and case for all customers.
- By combing ledgers into a consolidated ledger, accounting would be easier; Company's administrative costs lower, and thus reduce long-term ratepayer costs. (*Ibid*, 29-30)

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[5] *Ibid*. 19 at 28 to 20 at 7. [Ex. 3]

In summary, this approach presents a **fair and reasonable** methodology to share capital and other costs across all similar customers. If Consolidated Rates were fully implemented, as recommended by Mr. Herbert, all customers and the Company benefit. The Commission and RUCO also benefit by being able to concentrate on one set of books instead of many. (*Ibid,* 30)

Separation of "water" and "waste water" into two tariffs is assumed. (*Ibid*)

Mr. Hebert's "rate equalization" process considers *similarities* to consider when handling the various operating characteristics in the various water districts. Mr. Herbert discusses this in terms of *similarities*, as follows:

> "There are many similarities in the manner in which the several areas [such as Arizona water districts] are operated. All the systems pump their treated water through transmission lines to distribution areas that include mains, booster pump stations and storage facilities. All of the areas rely on a centralized work force for billing, accounting, engineering, administration, and regulatory matters. All of the areas rely on a common source of funds for financing working capital and plant construction. Inasmuch as the costs of operation are related to functions in which the operating characteristics are the same, the use of equal rates is supported." (*Ibid,* original underlined)

Mr. Herbert has shown O&M activities, in general, are similar for the long-term, thus consolidation is appropriate. Many of these functions are already consolidated by Arizona-American; however, they are then "de-consolidated," using traditional separate division-oriented formulae, to allocate these costs back to various water and sewage water divisions. (*Ibid*)

His explanation of how equivalence of offered services supports consolidation by providing directly applicable evidence those noncontiguous service areas, such as the Arizona-American districts, should consolidate rates, by stating:

> "The use of the same rates in a utility with noncontiguous service areas is supported by the equivalent service rendered in each area. Although there would be considerable debate with respect to the equivalency of the service rendered to different customer classifications, there is no question that the service rendered to a residence in one area is the same as the service rendered to a residence in another area. Residential customers are relatively consistent in their uses of water: cooking, bathing, cleaning and other sanitary purposes, and lawn sprinkling. If customers use water for the same purposes, the service offering is the same and should be priced accordingly. Thus, from this perspective, there is no basis for charging different prices to customers in different areas." [Underlined for emphasis] (*Ibid*, original underlined)

Mr. Herbert resolves if variances in allocated cost of tariff groups warrant the use of separate rate schedules as follows:

> "No, they do not. Charging one group of customers' higher rates because they may be served by a newer plant whose original cost exceeds that of other plants as a result of inflation is *not logical*. The concepts previously discussed outweigh this consideration and justify the goal of moving toward a single tariff. The electric industry reflects such concepts when it serves customers in geographically dispersed areas. A kilowatt-hour delivered in one area has the same price as a kilowatt-hour delivered in another area despite the fact that cost of service studies could be performed to identify differences in the cost of providing service to customers classes in different regions." (*Ibid*, 30-31)

There is recent Arizona precedence for Mr. Herbert's comments concerning consolidation of electric rates. In the UNS Electric rate case, the residential and small business rates in Mohave and Santa Cruz County were consolidated, to eliminate five decades of higher rates in

the smaller county, as I testified there "is no valid basis for continuing separate rates." (*Ibid*, 31)

This water rate case has exactly the same issue but is compounded by many different tariffs.

Other Cost of Service considerations that Mr. Herbert state support rate consolidation:

> "The Company [including Arizona-American] has taken a number of steps in recent years to centralize and consolidate its operations. Common costs which must be assigned or allocated to each operating area to establish tariff group revenue requirements include management fees, corporate headquarters costs, office costs, customer service costs, depreciation expense developed on the basis of Company-wide depreciation rates and income tax expense based on total Company financing and tax provisions. The allocation of common costs, while reasonable, are subject to judgment and may not result in the development of tariff group revenue requirements which reflect precisely the cost of serving each area." (*Ibid*)

Mr. Herbert discusses how a *single tariff will result in higher rate increases in areas where the rates are lower.* Conversely, a *single tariff will have smaller rate increases in areas where rates are higher.* This balancing, equalizing or consolidation, makes rates fair and reasonable. (*Ibid*, original underlined)

In summary, Mr. Herbert summary supports this rate equalization analysis and suggests it be done using gradualism principles, that is, over several rate cases. He specifically stated:

> "Rate equalization is appropriate for New Jersey-American. Such pricing is supported by considerations of the benefits of sharing the impact of capital programs on a Company-wide basis, the significant majority of common costs, the equivalent service rendered, electric industry precedent and the per capita income of affected communities. The best interests of the customers are served through gradualism by continuing to implement rate equalization during this case and in subsequent cases." (*Ibid*)

4.3 Conclusions.

With respect to his concerns, Mr. Townsely is first and foremost concerned about any short-term delay. As a ratepayer, it is the long-term cost for quality service that impacts ratepayers than the Company's financial conditions.

It is my opinion, that RUCO, Staff and the Company can produce Consolidated Rate Schedules for review and comparison, as a separate effort, after this case concludes. The Company's Closing Brief position on this is appropriate. This provides at least three independent views for review, cross-examination, and full-disclosure in public hearings according to a new consolidated rate case schedule.

Concern is about the public and political impacts of Consolidation are, in my opinion, minor when compared to the proposed gains by the Company. Public relations damage has occurred. This case has a record number of water company customer complaints. The public couldn't be more upset than they are right now.

This party considers "consolidation" to means equalize or make level, all elements involved in efficiently running this business. All rate cases end with a determination of a fair and reasonable rate of return for the Company based on a total revenue stream from the ratepayers. The total revenue requirements must be raised from customers, with fixed (service cost) and variable (volumetric rates) customer charges for different rate classes based on "meter" size.

It is concluded that the following are necessary to most effectively consolidate:

1. Consolidate all "fixed" charges into one Service Charge for each customer category, with one customer category for each meter class, combining residential and commercial rate classes.

2. Consolidate all "variable" or volumetric rates in to one set of rates for each customer category for each meter class. An inclined reverse block rate structure, with adequate number of blocks be developed to ensure all customers can "see" and have an opportunity to reduce consumption by reaching the next lower rate block. At least ten such blocks should be designed; including lower rates for the lowest rate block and significantly higher rates for highest consumption customers in each rate category as a water conservation measure. There should be at least a 100% difference between the lowest and highest rates in each rate category. The lowest rate block should be described for Lower Income customers and publicized as such.

3. Consolidate all miscellaneous "charges and fees" into one schedule for all customers.

4. Consolidate "rules and regulations" into one streamlined, easy to read, document in English and Spanish, available for customers during initial interviews, the web, and in all offices.

5. Consolidate all revenue into one consolidated account (retaining water districts accounting is encouraged) when presenting future rate cases. Revenue will be determined for the consolidated account and not allocated to water districts as a rate making measure.

6. Consider completing the ISO 9000 (Quality Management) qualification process for all divisions with an aim to integrate all company policies and practices, and consider qualifying under ISO 14000 (Environment Management) as a bonus. The additional funds for this are embedded in the "consolidation" incentive part of this rate case to assist this effort.

This party does not support the SBC process recommended by the Company as SBC is NOT understood by ratepayers, sets up additional accounting procedures, and finally this Commission has recently resolved a most challenging and grueling experience in eliminating the SBC by a major electric utility. It was an ugly show that neither I nor anyone else who wants Arizona-American to be successful would wish on their worst enemy. The SBC recommendation is a partial solution when a complete "accounting reset" must be accomplished that will improve Arizona-American. The Test Year plus equipment changes provides the Company the solid foundation and basis <u>right now</u> to start the Consolidation process. Don't wait for later, it maybe too late.

4.4 Recommendations.

I strongly urge the Commission

1. Order this rate case be re-opened to review consolidated financial data for Consolidated Rates and order the Company to consolidate all aspects of these six water districts immediately after the rates being proposed are approved for implementation, and

2. To require the unconsolidated water divisions in a future rate case to fully consolidate with the Company, as a single fully integrated company instead of individual inefficient smaller, uncoordinated, unconsolidated companies, and

3. To Increase the Company's ROI at 1 to 2 percentage points, as a bonus, above what it would normally award in this case to reflect the higher risk and potential additional benefits to help reward the Company reorganize into a better entity and become ISO 9000 certified.

Without #3 above, in my opinion, the energies necessary to respond effectively to these demands may have less importance to upper management as success has smaller reward.

By making bold, objective and obviously beneficial changes <u>now,</u> consolidation will improve the entire company, and all ratepayers will benefit in the long-term.

The present situation is deplorable, almost dysfunctional and is surely not impressive to potential investors, actual shareholders and today's nervous financial community.

A strong, united, and more efficient consolidated operation attracts investors, while continuation of the present situation may continue to repel them.

I support such action as a result of this rate case with periodic status reports to the Commission and parties as to "lessons learned" so early mistakes in the consolidation are transparent and the best corrective action measures, with support by the Staff, as necessary, to make Arizona-American Water Company the best in Arizona and the Western United States.

Exhibit MM-2

Excerpt from the Marshall Magruder Reply Brief of 15 May 2009 in Commission Docket No. W/SW-010303A-09-0227, pages 8 to 14, Section 2, Conservation as a Significant Driver of Water Volumetric Rates"

NOTES CONCERNING THIS EXERPT:

1. It should be noted that this excerpt used revenue and rate data from the First Rate Case that has been modified for this case; therefore, please see the basic testimony for actual numerical values and consider those in this excerpt as representative examples of the important principles herein.
2. The pagination and footnotes were not changed to match the original.

Quote:

Section 2

ISSUE NO. 1

CONSERVATION AS A SIGNIFICANT DRIVER OF WATER VOLUMETRIC RATES

2.1 Summary of Issue No. 1.

The results of rate structure design are revenue-neutral for the Company with obvious "price signals" so ratepayers can actually make behavior changes required to reduce their water demands and conserve water. (Magruder Brief, 12)

A rate structure with frequent price changes provides an opportunity so customers can clearly see "price signals" by the proposed ten-tier inverse rate block structure. It has price-breaks at 4,000-gallon intervals for residential (5/8 & 3/4-inch) and the smallest commercial customers. This stair-stepped, increasing rate process is necessary for every rate category, including commercial categories. A nearby water-short company has much higher rates than Arizona-American, especially for its highest consuming ratepayers. (*Ibid*, 12, footnote 5)

The principle used by this party is *that customers who use the least amount of water pay the lowest rates and conversely for the highest consuming customers, the highest rates*. (*Ibid*, 13)

A significant difference between these extremes is an important feature, to show the strength of price to influence consumption. When consolidation is considered, ten or more rate tiered structure can provide important impacts for *fairness and reasonableness*. (*Ibid*)

The lowest rate tiers, with the lowest rates, provide a "low-income" measure, as the company's rate structure has no minimal or low-income rates. (*Ibid*)

No other Party presented a rate structure with significant differences between the lowest to highest rate differences; however, the Staff Alternative Rate Design for Tubac testimony was closest to this party's. None proposed more than two tiers for commercial customers, which means only one break point exists as a price signal that might already have been exceeded or reaching that demand break point is beyond reason. (*Ibid*)

This issue consists of two parts, the Service Charge and the Consumption (volumetric) rates. The Service Charge passes the overall infrastructure fixed costs to customers and the volumetric rates are based on water consumed. The combination of these two must be rate-neutral so the Company's revenue is a fair rate of return on its investment. (*Ibid*, 13)

2.2 Reply to Post Hearing Opening Briefs.

2.1.1 Proposed Additional "Price Signal" Breakpoints in the Commodity Rate Structures.

Company Brief.

In section "Tubac Rate Design" the Company stated Magruder proposed "many more rate blocks, with severe inverted block rates" for the Tubac Water District. (Company Brief, 52)

Further, Arizona-American opposed the Magruder proposal and "will respond further in its reply brief." (*Ibid*) *[Note: This makes a reply herein rather challenging.]*

RUCO and Briefs.

Neither discussed additional breakpoints in rate structures.

Magruder Reply.

Magruder testimonies determined a rate structure with a reasonable Service Charge plus multiple tiers with clear, obvious, observable and attainable "price break points" so customers reduce their costs by reducing their consumption. (Magruder Brief, 13)

"The Tubac Water District was used throughout as an example; however, all resultant conclusions and recommendations are company-wide, and specifically only for the six water districts in this case." (*Ibid*, 13, underlined original)

The Company missed this point.

The Magruder-proposed ten-tiered rate block process is for use with ALL rate classes and categories for all six water districts. Each rate class (residential, commercial) and category (by consumption) may have different rate block sizes and rates. (*Ibid,* 12-13)

The Company in all its filings failed to demonstrate any understanding of sending price signals as a way to conserve water. In Tubac and the other water districts herein, proposed residential rates have wide variations and wide differences. (*Ibid,* 20)

The Company does not understand the impact of a "price signal" or how to make meaningful and fair rates to conserve critical water in a desert state that is not sustaining its water table.

At least 100% difference should be used to send price signals between multiple tiers and still be revenue neutral. (*Ibid,* 14) Magruder used 400% for residential and small business rates.

This Party's proposed consumption rates are based on lowering the rates for low volume users and raising the rates for high volume water users. To make this effective, one must ensure the customers can "see" the benefits of lower cost with lower water consumption. These "price signals" must be visible and must be attainable or using the inverse rate block structure has no other major purpose. (*Ibid,* 17, emphasis added)

In Table 1, major differences in the proposed residential rate schedules for the example water district are shown. The same type of differences also exists for the other districts. (*Ibid*, 17, and Table 3)

The Magruder proposed rates are clear, obvious and progressively increase with consumption. NO logical rationale has been presented or may exist for the major differences and variances in volumetric rates and rate blocks being proposed. (*Ibid*, 17)

Table 1. Present and Proposed Tubac Residential Rate Commodity Tiers and Rate Schedules

(Per 1,000 gallons)

Commodity Usage Tiers	**Magruder's Proposed Rates**	Present Rates	Company Initial Proposal	Company Final Proposal	Staff Final Proposal	Staff Alternative	RUCO Final Proposal
0 to 3,000 gallons	**$1.50**	$ 1.89	$ 3.78	$ 3.400	$ 2.67	$ 1.90	$ 3.4341
3,001 to 10,000 gallons						$ 3.00	
First 4,000 gallons	**$1.50**	$ 1.89	$ 3.78	$ 3.400	$ 2.67		$ 3.4341
4,001 to 8,000 gallons	**$ 2.00**	$ 2.85	$ 4.85	$ 4.800	$ 4.15		$ 4.4062
8,001 to12, 000 gallons	**$ 2.50**						
10,001 to 20, 000 gallons						$ 4.00	
12,001 to 16,000 gallons	**$ 3.00**						

Table 1. Present and Proposed Tubac Residential Rate Commodity Tiers and Rate Schedules
(Per 1,000 gallons)

Commodity Usage Tiers	**Magruder's Proposed Rates**	Present Rates	Company Initial Proposal	Company Final Proposal	Staff Final Proposal	Staff Alternative	RUCO Final Proposal
16,001 to 20,000 gallons	**$ 3.50**						
20,001 to 24,000 gallons	**$ 4.00**						
24,001 to 28,000 gallons	**$ 4.50**						
28,001 to 32,000 gallons	**$ 5.00**	$ 3.41	$ 4.95	$ 5.500	$ 5.25	$ 6.00	$ 4.4971
36,001 to 40,000 gallons	**$ 5.50**						
40,001 gallons and above	**$ 6.00**						

Numerous price-break points are required for a wide range of consumption. As shown in this table, ten tiers or rate blocks were proposed for ALL rate categories. All customers, residential and commercial, should be able to see and be rewarded with lower water usage costs for conserving water in our state. (*Ibid*, 17, original underlined)

The RUCO and Staff rate structure proposals have weak price signals compared to this party. The Staff's Final (Alternative) Rate Structure 4-Tier, for Tubac is the closest proposed to send price signals. A 5-Tier structure proposed for Paradise Valley has such large water volume differences between steps (up to 60,000 gallons) that inhibit any customer to reduce demand by one step to a lower water rate. (*Ibid*, 20-21)

The Company appears to have not considered water conservation important in rate design.

At least 100% difference between lowest and highest rates should be used to send price signals with multiple tiers and remain revenue neutral. Magruder proposed a 400% difference in residential rates, from $1.50/1000 gallons and to $6.00/1000 gallons. (*Ibid,* 14)

Cost of Service is a fixed charge and is not intended to provide customers a "price signal" to encourage water conservation. The Company, RUCO, and Staff have proposed significant increases in this charge. Table 2 has illustrative data for Tubac, the water district with highest The Tubac Cost of Service. These proposals illustrate these wide variations without explanation.

Further, the Cost of Service rate categories should be based only on size of the interconnection and be identical for Residential and Commercial rate types (with same sized connection). Since the amount of water demand is determined by infrastructure size to serve a customer, there should be NO difference in Cost of Service for residential and commercial customers with the same-size meter connection. (*Ibid,* 15)

The Magruder residential cost of service proposal is for all water districts. (*Ibid,* 14)

Table 2. Proposed Cost of Service Comparisons (Tubac Water District Example).

Customer Type	Rate Category		Present	Company Initial	Company Final	RUCO Final	ACC Staff Alternative	Staff Final	**Magruder Proposal**	Number of Customers
Residential	5/8 & 3/4-in	F1M1A	$ 19.68	$32.50	$ 31.00	$ 29.53	$24.00	$ 32.50	**$25.00**	461
	1-inch	F1M1B	$ 29.63	$ 48.93	$ 46.67	$ 44.45	$72.00	$ 48.63	**$50.00**	41
	2-inch	F1M1D	$97.49	$161.00	$153.57	$146.27	$224.00	$161.00	**$100.00**	3
	3-inch	F1M1E	$115.65	$190.99	$182.17	$173.52	$448.00	$190.99	**$150.00**	1
								Total Residential Customers		489
Commercial	5/8 & 3/4-in	F2M1A	$ 19.68	$ 32.50	$ 31.00	$ 29.53	$24.00	$ 32.50	**$ 25.00**	47
	1-inch	F2M1B	$ 29.63	$ 48.93	$ 46.67	$ 44.45	$72.00	$ 48.63	**$ 50.00**	16
	1½-in	F2M1C	$ 59.26	$ 97.66	$ 93.35	$ 89.91	$140.00	$ 97.86	**$ 75.00**	2
	2-inch	F2M1D	$ 97.49	$161.00	$153.57	$146.27	$224.00	$161.00	**$ 100.00**	10

Table 2. Proposed Cost of Service Comparisons (Tubac Water District Example).

Customer Type	Rate Category		Present	Company Initial	Company Final	RUCO Final	ACC Staff Alternative	Staff Final	**Magruder Proposal**	Number of Customers
	3-inch	F2M1E	$115.65	$190.99	$182.17	$173.52	**$448.00**	$190.99	**$ 150.00**	4
									Total Commercial Customers	78
Growth	5/8 & 3/4-in	F1M1A	Same at Residential F1M1A							10
									Total Customers	549

The Company, RUCO and Staff proposed significant Cost of Service differences for customer types. (*Ibid,* 15)

Significant variations in proposed Cost of Service in this example water district vary for small residential/commercial customers. This pales if compared to 3-inch residential/commercial customer change. The Staff Alternative at $448.00 greatly exceeds the $191.00 charge proposed by the others; therefore, this appears to be an error, along with the 2-inch Cost of Service proposed in the Staff Alternative. (*Ibid*, 15)

Significant differences in the basic Cost of Service exist in each water district to provide the same product, to meet the same standards, using the same engineering and operations staffs, and the same administrative personnel. In addition, proposed increases vary from $0.25 for Mohave (Staff) to $12.82 for Tubac (Company Final). (*Ibid,* pp. 15-25, Table 2)

These unstable and unfair fixed charges must be reviewed for consolidation to accomplish long-term leveling. This will eliminate the peaks and valleys in the existing Cost of Service charges, and will greatly improve the public relations for the Company. These cost swings will continue until consolidation is complete, as all water districts require major capital improvements, at various asynchronous times that make these large cost swings. (*Ibid,* 16)

The six water districts in this case have the average monthly consumption for residential customers shown in Table 3. Also shown are present, Company initial and final proposed costs for the first 1,000 gallons in the First Tier. Except for the Staff's Alternative Rate Design for Tubac, all water district rates use the first 4,000 gallons for the First Tier. (*Ibid*, 18; Table 4, 19)

Table 3 – Average Residential Consumption and Initial Cost Proposals for First, 1,000 Gallons.

Water District	Average Consumer Water Consumption	Proposed Cost per 1000 gallons for First 1,000 Gallons						
		Present	Company Initial	Company Final	RUCO Final	Staff Alternative	Staff Final	Magruder
Sun City West	6,704 gallons	$ 1.35	$ 2.880	$ 2.8734	$ 2.6929	Same as Staff Final	$2.75	$ 1.50
Agua Fria	7,400 gallons	$ 1.53	$ 2.926	$ 2.9260	$ 2.2697		$ 1.84	$ 1.50
Mohave	8,073 gallons	$ 0.85	$ 1.471	$ 1.3190	$ 1.1944		$ 0.88	$ 1.50
Havasu	9,705 gallons	$ 1.68	$ 4.033	$ 3.4390	$ 2.2741		$ 2.26	$ 1.50
Tubac	10,757 gallons	$ 1.89	$ 3.400	$ 3.7800	$ 3.4341	$ 1.90	$ 1.89	$ 1.50
Paradise Valley	20,493 gallons	$ 1.21	$ 1.223	$ 1.2130	$ 1.3119	$1.200-$ 1.050	$ 1.41	$ 1.50
Total for 6 water districts	63,132 gallons	$8.51	$15.9333	$15.5504	$13.1771		$ 11.0400	$9.00
Average for 6 water districts	10,522 gallons	$1.4186	$ 2.6555	$ 2.5917	$ 2.6350		$ 1.8400	$ 1.5000

Table 3 provides the average water consumption per residential customers by water district. In general, Sun City West has the lowest consumption at 6,704 gallons per customer, and increasing approximately 1,000 gallons a month, for Agua Fria, Mohave, Havasu, and Tubac at 11,757 gallons per average customer. These are tightly grouped compared to Paradise Valley with an average customer using almost 20,500 gallons per month. (*Ibid*)

There is no correlation between Average Water Consumption and rate schedules. (*Ibid*, 18)

The proposed rates in Table 3 vary from $0.88 for Mohave (Staff) to $4.033 for Havasu (Company Final). The proposed Tubac rates vary between $1.41 (Staff) and $3.78/1,000 gallons (Company Final). There is no logical reason or has any rationale been provided in this case that would lead to such a wide variance. (*Ibid*, 18 and Table 4, 19)

As shown in Magruder Exhibit MM-6, with progressive tiers, the higher usage rates of $6.00 (or capped at $5.00 for largest commercial due to economics of scale) provide considerably more revenue for the Company than the present revenue from water usage. This "extra" revenue is included to cushion an anticipated impact from customer conservation measures to providing adequate revenue for the Company. (*Ibid*, 18)

Table 4. Sample Tubac Residential Customer Bill Comparing Company and Magruder Total Service Charge including Arsenic Surcharges.

Billing Item	Present	Company Original Proposal			Magruder Proposal		
		Charge	Change			Change	
Cost of Service	$19.68	$32.50	+ $12.82	+ 62.8%	$ 25.00	+ $5.32	+25.4%
Average Usage	$ 49.46	$85.44	+ $35.98	+72.7%	$ 26.50	- $22.96	-53.6%
Total Bill	$ 69.14	$117.94	+$48.80	+ 70.6%	$ 51.50	- $17.64	-24.5%

Average Water Usage = 11,797 gallons

There is also second Cost of Service charge that is indirectly in this rate case planned for Tubac to fund an arsenic treatment plant (Issue 2) with a capital cost of some $2.3 million. The Basic Cost of Service charge could increase from the present $19.68 to Company's proposed $32.50, shown in Table 4. Add the Company's proposed Arsenic Service Charge of $25.98, for a proposed Total Cost of Service of $68.48 per month. It is doubtful if Cost of Service exceeds $68.48 in Arizona for residential customers. As shown in Table 5 in the next section, this total customer cost increase is 347% higher than the present. This is an excessive rate increase, beyond the customary rate increases usually approved by the Commission. The most fair and reasonable way for all water districts to above new, expensive and necessary capital improvements is through rate consolidation to eliminate unintended consequences for the smallest water districts. (*Ibid*, 18 and Table 5, 19)

2.3 Conclusions.

Same as Magruder Opening Brief, paragraph 2.3.

The large variation in the fixed Cost of Service charge must be smoothed out, so the Company can make all prudent capital expenses without causing violent perturbations to its customers. This will lead to a consolidation recommendation later. (*Ibid,* 21)

In summary, the proposed rate structures, other than Staff Alternative and mine, do NOT promote water conservation, in an Active Management Area, where future growth is limited based on the AMA requirements to maintain sustainability in water resources as required by the Santa Cruz Comprehensive Plan, Water Resources Element, where "water supplies are protected and conserved." (*Ibid,* 21)

Water conservation is necessary for a **fair and reasonable** rate structure. The evidence presented remains valid that support this issue. Water conservation and sustainment remain critical State of Arizona objectives and also is an objective of Arizona-American and the Commission. (*Ibid,* 21)

2.4 Recommendations.

To have water conservation as a significant driver of the volumetric water rate, the following are recommended:

1. That the lowest residential rate tiers by credited as a mechanism to provide low-income rates without additional administrative overhead. This should result in defining the first rate tier also as the "low-income" or the survival rate level.
2. That a minimum of ten tiers be used for all residential and commercial rate categories. This will require only an adjustment of "how" the revenue requirements will be distributed to the customer rate categories when higher users pay more, lower user pay less.
3. That all residential and commercial customers, with the same water connection size, have identical Cost of Service and be in the same rate categories that are designed to account for the infrastructure required for service. This should reduce administrative tasks for the Company and make understanding rates easier.
4. That the Commission-determined fair and reasonable company's revenue will be collected and the resultant consumption structure must be revenue-neutral for the Company.
5. That the billing statements make obvious the rate per tier and where that monthly bill lies in the multi-tier structure. This is how the "price-breaks" can be observed and how much less water consumed is necessary to reach then next lower tier.
6. That the smallest residential and commercial rate tiers (at least the first several) identical. This will be advantageous to small businesses that the Company's schedules have shown to typically use less water than the comparable residential rate category.
7. That the fixed Cost of Service variations be minimal and leveled out across all rate payers in each rate category. This will also lead to consolidation of all fixed charges, across all water divisions, to equalize this "fixed" cost.

(*Ibid,* 21-22)